

Becoming an Effective Journal Reviewer

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Introduction

Peer review is a time-honored process that uses editors and experts to evaluate the scientific merit of 1) manuscript submissions to journals; 2) abstracts and papers submitted for consideration for presentation at professional meetings; and, 3) grant applications requesting funding of research projects. For journal submissions, the process is used to ensure a level of confidence in the rigor of the research process utilized to conduct a scientific investigation and the accuracy of the study findings and conclusions presented. Papers published in peer-reviewed journals are assumed to have a higher level of quality than those published elsewhere. For non-scientists, peer-reviewed publications remain the “gold standard” as credible, trusted sources of information.¹

Challenges

Finding individuals to serve on editorial review boards can be challenging for editors. An editorial by William Perrin explored the issues that editors face in finding individuals who will agree to serve as reviewers.² A primary difficulty encountered is that often the leading recognized experts in a given field who are best suited to review the paper are “too busy” with their own work, requiring editors to then move down the list of choices to locate individuals who have enough knowledge of the subject matter to review the paper. The worst case scenario for the editor is having to reach out to reviewers who are not experts in the subject area or not as closely related to the field, increasing the likelihood that the quality of the review will be less than desired.² Neither editors nor authors benefit from the outcomes of this process.

Reviewer Responsibilities

The primary responsibilities of a reviewer are to inform the editor about whether a manuscript is acceptable for publication and to provide the author with an understanding about how to improve the submission. Reviewers should be able

to identify and discuss strengths and weaknesses of a given paper, minimizing time spent searching for minor strengths in a paper that is obviously weak and should be rejected and the tendency to obsess over minor weaknesses in a paper that is otherwise strong.³ The review should be conducted efficiently and returned back to the editor promptly to avoid unnecessary delays between time of submission and notification to authors.

Zucker states that reviewers make two common mistakes.³ First, reviewers often request that authors conduct additional work and/or submit additional data as a contingency for publication. Reviewers should not approach a manuscript review thinking about how they would have conducted the study. A request for additional data should not be made lightly, as it places considerable burden on the authors. It is important to remember that submitted manuscripts represent a body of work that has been completed; therefore, if the stated conclusions in the paper are not supported by the work described, then the reviewer should recommend to the editor that the paper be rejected. Second, reviewers may fail to consider whether the paper is appropriate for publication based upon how well the paper aligns with the stated goals and requirements of the journal. A reviewer needs to decide whether a paper that is well-written and novel should be accepted if the paper has not been constructed according to stated guidelines.

Reviewers also should consider the amount of work that will be required by the author to revise the paper to meet posted journal standards.³ For example, if a manuscript far exceeds the word count allowed by the journal, the reviewer may recommend that the authors either substantially reduce the word count, or submit to another publication that will accept longer papers. The reviewer should clearly communicate these concerns with the editor early in the review process to come to a consensus about how to advise the author about needed revisions.

Other skills and knowledge are required to become an excellent journal reviewer. The following is a list of important aspects of reviewing for peer-reviewed journals:

1. All reviewers should be familiar with the guidelines to authors. Knowing the suggested word count, format for references, tables, figures, etc. is essential.
2. Respond to the request to review a paper. Reviewers are asked to evaluate papers based on their specific expertise. Editors may have limited numbers of reviewers with the expertise needed for a particular paper. If reviewers fail to respond, it delays the entire process for the authors and the editorial staff. Even responding with a "No" will help the process move forward.
3. Start the review process with an optimistic point of view. Many reviewers find ways to reject a paper expecting authors to convince them otherwise. Good reviews help authors improve their work even if their papers are not accepted for publication. Reviews that "tear a paper apart" are not useful to the editor, author or reputation of the journal. The review should provide a balance between positive feedback and critical assessment of what needs to be accomplished to improve the paper. The best reviews provide critical commentary with concrete recommendations
4. Provide reviews that are tactful, constructive and as professional as possible. Wording such as "Who cares?", "This sentence makes no sense", "I disagree with this statement", "This is bad" can be reworded so the author does not become defensive and overlook the valuable insight of the reviewer. One might wish to approach every review as if it were a graduate student who needs to be mentored. Also, be a role model of good writing by providing reviews that are free of typos and spelling errors.
5. Most reviewer evaluation forms have a section where reviewers can provide confidential comments to the editor. Do not make substantive points about a paper unless those comments also are shared with the authors. It is frustrating to editors if the confidential comments are more crucial than what will be shared with the authors. It also can place the editor in an awkward position if the decision regarding the manuscript does not coincide with the review.
6. Reviews need to be prioritized. It should be

clear what are priority areas for revisions and what are suggested changes to improve the manuscript. In addition, justify statements with references and logical arguments.⁴ Even if the reviewer recommends that the paper should be rejected, a thorough review with some encouragement and advice will help the author improve future research and writing efforts.

7. Submit the review to the editor on time. If the situation changes and more time is needed, communicate with the editor to ensure a timely review process for the authors.
8. After the first reviews are submitted to the authors, resist the temptation to add additional requests in subsequent reviews that are not related to the original revisions. Authors become frustrated if they have responded to all of the recommended revisions only to have others added in the second or third round.

Other Considerations

Serving as a reviewer is an expectation of all scientific professionals, and this responsibility should be included in job descriptions for faculty and as a requirement for tenure.² It also is an honor and privilege to contribute to the profession by supporting and improving the peer review process. However, it is becoming increasingly more difficult to serve as a reviewer, as fields of study are becoming more specialized, scientific technology is increasingly complex, and research projects cross multiple disciplines. For interdisciplinary projects, it is not realistic to expect two or three people to have expertise in all aspects of the project. When a reviewer is asked to look at a paper that is outside of his expertise, the nature of the question asked by the reviewer changes from, "Is this paper a significant contribution to the literature" to "Is there anything about this paper that makes me feel uncomfortable?"⁵ While the reviewer is expected to detect notable design flaws in a paper, it may not be as easy to do if the reviewer has not engaged in a similar type of work or if the reviewer is unaware of subtleties, such as cultural differences or variances due to study setting, that might be inherently important to project design and related outcomes.

Further compounding these challenges is the notion that faculty feel increasingly pressured to publish, who then choose to "split" their work across multiple papers, submitting pieces of the same study to several journals with the hope of

improving the odds of getting a paper accepted for publication. The increased number of submissions and the finite number of available reviewers overloads the peer review system. When there are fewer reviewers available to look at a paper, the process of review is delayed, limiting the dissemination of new knowledge in a timely manner.⁵

To entice more individuals to participate in peer review, individuals need to find a balance between the demands of the typical academic workload and the time needed to serve in this capacity. Some have examined how best to reward the efforts of those who dedicate their time and talents as reviewers, especially for those who consistently provide thoughtful, comprehensive and quality reviews. If serving as a reviewer becomes a stated expectation for faculty promotion and tenure, then a method to measure and document performance is required to help ensure that participation will “count” as a scholarly

activity among the metrics used to determine eligibility for academic advancement. Finally, new software systems used to track manuscript submissions and corresponding documentation can be used to archive reviews, which can be used for reviewer training and evaluate reviewer performance across time.^{6,7}

Conclusion

Serving as a reviewer for a peer-reviewed scientific publication can be a challenging yet rewarding experience. Professionals seeking an appointment as a reviewer or membership on an editorial review board must be willing to dedicate time and expertise and be willing to be constantly educated about how to become a better reviewer. Conducting reviews in a positive manner with a spirit of professionalism will assist in encouraging and mentoring the future investigators in the field.

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