

Peer Review of an Article: Tips, Tricks, and Troubleshooting

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Indian J Radiol Imaging 2025;35(Suppl S1):S110–S113.

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Abstract

Keywords

- editor
- manuscript
- reviewer

Scientific publications are rapidly increasing in number, placing growing pressure on academics to publish. This study highlights the important tips and tricks for the authors in the context of reviewers' feedback and how to manage the article till the final stage of publication.

Introduction

Peer review refers to the evaluation of articles submitted to a journal by a panel of reviewers of the same field and is vital for scientific publishing. Peer review is a long-standing and established process that originated in the 18th century.¹ As the volume of scientific publications grows and pressure on academics to publish increases, there is a rapid increase in the number of publications. This has been further accelerated by the rise of publishers monetizing the process, leading to an exponential increase in the publication of low- or marginal-quality research. Hence, peer reviewers act as gatekeepers of science and are responsible for maintaining the quality and integrity of the research. They are expected to be meticulous and perform the process with diligence. Although they receive no financial compensation for this process, peer reviewing helps in boosting one's academic career and helps stay abreast with the latest research in the field. Most reviewers are experienced; however, with many early career researchers joining the peer review system, it becomes essential that there is ongoing education on the obligations and ethics related to peer review.

Types of Peer Review

The peer review process might be double blinded (where both the authors and reviewers do not know the identity of each other), single blinded (where the reviewers know who the authors are, but not vice versa), and open peer review (where the authors and reviewers both know the details of each other).² Reviewers must declare any conflict of interest and relationships with the authors before agreeing to review a manuscript. This is to ensure that the reviewers give unbiased consideration to each manuscript they accept to review, based on its merits, without regard to sex, nationality, seniority, institutional affiliation, race, and religion of the authors. The peer review process is confidential; hence, no information or correspondence about a manuscript should be shared with anyone outside of the peer review process, without the explicit permission of the editor. The reviewer must also decide whether he or she can complete the review in the allotted time. If the reviewer thinks that he or she might not meet the deadline, the editor should be informed timely, so that the editor can make a decision on whether to reallot the manuscript or inform the authors that the review process might be delayed.

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Reviewer Responsibilities

The reviewer is expected to read the manuscript thoroughly and offer constructive feedback about the manuscript in a respectful manner, to improve the quality of the article. Most journals have an online form that may consist of several text boxes to enter comments. It is preferable to use a structured format or a checklist, so that no section of the manuscript is missed. The *title* should adequately reflect the content of the manuscript and the context of the study. The introduction section should describe the intent of the study with a brief review of the literature. The purpose of the manuscript should be succinctly described. The methodology should mention the study design and details about the recruitment of participants with detailed inclusion and exclusion criteria. The reviewer needs to examine whether the design method is suited for the hypothesis that the authors wish to test and whether the study could be reproduced using the same methods. The methods of data acquisition and the statistical methods used for analysis need to be appraised for their appropriateness. Editors may employ the services of a statistician for this purpose.

The results section should clearly present the results in the same order paralleling the methodology. The reviewer also needs to scrutinize whether the results are convincing. All figures and graphs should be labeled and referred to in the text. The graphs and tables should appropriately reflect the results. The discussion should be concise and begin with the most important finding of the study. The results of the current study should be compared with the results in prior available literature. Any finding not consistent with prior common knowledge, should be mentioned and the reason for such discordance described. The conclusion should be justified by the results found in the study. The most crucial obligation of the peer reviewer is prevention of the publication of erroneous and/or unsubstantiated findings that could mislead subsequent research. The reference styling should be according to the journal guidelines. If there are any important missed references, these need to be indicated to the authors.

Summarizing the Review

The major strengths and weaknesses of the manuscript should be succinctly described in the "Comments to the Editor" section to help the editor make a final decision on the manuscript. The comment must also include a brief description of the study and the novel information presented, to guide the editor. It is also important that any significant similarity between the manuscript under consideration and any published article or submitted manuscripts are highlighted. It is fairly possible that manuscripts with no novelty or rationale are rejected. Also, there may be differing views between the reviewer panels on the manuscript. So, definitive statements indicating the acceptance or rejection of the article should not be made in the comments section. Reviewers must avoid making statements that might be interpreted as questioning the author's reputation.

Decision on the Manuscript

While deciding on a manuscript, the reviewer should keep in mind if the manuscript has a solid rationale, proper methodology, appropriate data analysis, and accurate reporting of results. Reviewers usually have a choice between four options, namely, reject, major revisions, minor revisions, and accept. Manuscripts having a poor description of the scientific question being answered and a poor methodology could be rejected on the first instance. If the article is scientifically acceptable, but the language quality is poor, then a "minor revision" could be requested from the authors. It is advisable to avoid asking for too many revisions that are either outside of the authors' scope or not relevant to what the authors wish to convey. Asking for additional data or analysis that is not strictly linked to the manuscript under revision, but focuses on the potential next step of the research, only increases the timeline of the manuscript handling process for the editor.

Revision of the Manuscript

When authors are asked to make revisions, a list of changes and comments for the reviewers are included in the resubmission. The revised version may be assessed and decision finalized by the editors themselves, if only minor revisions were requested, or may be returned to the original reviewers if major revisions were requested. The reviewers are then supposed to examine if the changes were satisfactory. **– Fig. 1** shows methodology followed by the production team, editors, and reviewers in handling the manuscript.

Difficult Peer Reviewers

"Difficult" peer reviewers include those with unreasonable delays in the response to accepting the invitation to review an article and delay in turning in the report or accepting/rejecting a manuscript too easily, with minimal critique, within a short time interval, or unfairly criticize a competitor's work, and request too much information.³ Editors tend to avoid choosing such "difficult" reviewers for keeping the manuscript cycle simple. It has also been critiqued that the traditional peer review is often slow and the quality is unpredictable. We can also see papers that are published with glaring errors and major flaws, which were not caught by the reviewers or editors. However, unbiased experienced reviewers always provide useful critical feedback that authors can use to improve their work before sharing it with a large audience. **- Table 1** summarizes the checklist, tips, and troubleshooting methods to be used by the reviewers to expedite the review process.^{4,5}

Conclusion

In conclusion, peer reviewers have ethical obligations related to the responsibility associated with appraisal, and this task requires a critical approach so that the integrity and quality of research in the field are maintained.

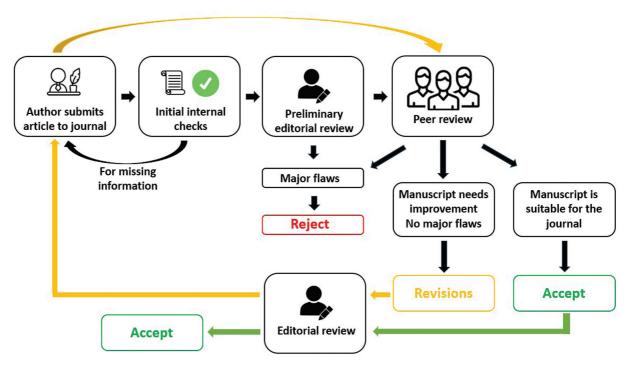


Fig. 1 Methodology of handling the Manuscript.

| Table 1 | Tips and troubleshooting for ar | ticle processing ^{4,5} |
|----------|---------------------------------|---------------------------------|
| I able I | Tips and croubleshooting for an | ticle processing . |

| Sections | Reviewer | Troubleshooting |
|-------------------------------|---|---|
| Instructions | Check type of manuscript, word limit, and various subheadings as per journal instructions | Production team to see carefully for all the instructions before sending it to the editor |
| Plagiarism | Use software/tools | Send back to authors for editing |
| Conflict of interest | Clear statement needs to be mentioned | Send back to authors for addition |
| Ethical statement | Clear statement needs to be mentioned | Send back to authors for addition |
| Title | Should include imaging technique, patient population, and disease evaluated | Title can be suggested to the authors if required Avoid diagnosis in the title in interesting cases |
| Abstract | Introduction, methods, results, and discussion subheadings Be economical in choosing words | Send back to authors for editing Production team can take action before sending to the editor |
| Text | Check for methodology, consent, study design, and flowchart of patient inclusion and exclusion | Send back to authors for editing Production team to check that the hospital name is not mentioned |
| Statistics | Appropriate statistics are applied | Expert statistician in the editorial board |
| Results | Should be clear, with appropriate tables, graphs, and figures (with use of arrows) | Send back to authors for editing |
| Discussion | Principal findings should be highlighted Previous literature should be addressed | Send back to authors for editing |
| Limitations | Current study should not be criticized by the authors Scope for future research may be addressed | Send back to authors for editing |
| Conclusion | Should be clear Clearly mention clinical implication of the study | Send back to authors for editing |
| References | As per journal's instructions | Send back to authors for editing |
| Decision on the manuscript | Clear decision—revision/accept/reject | Take viewpoints of associate editors in doubt and difficult situation |

Authors' Contributions

R.R. was responsible for the design and development of the study, and writing the manuscript. B.S. conceptualized the study and did the final manuscript editing.

Funding None.

Conflict of Interest None declared.

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