

Peer Review and the Publication Process

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ABSTRACT

To provide an overview of the peer review process, its various types, selection of peer reviewers, the purpose and significance of the peer review with regard to the assessment and management of quality of publications in academic journals. Editors can use procedures to encourage the publication of papers with innovative findings such as invited papers, early acceptance procedures, peer review, and in particular, electronic publication. The basic principle behind the proposals is to change the decision from whether to publish a paper and to how to publish it.

Key Words: Quality control, false cues utility of peer review, Types of peer review.

Introduction

Publication in academic journals plays an important role in the development and progress of any profession such as teaching, Medical, Engineering etc. It provides professionals an opportunity to share their examples of best practice and research with colleagues in the discipline. On the other hand, academic and scientific publication serves as source of knowledge and evidence for students, novice practitioners and researchers and contribute to their professional development. To serve these purposes effectively, appropriate resulting of manuscripts submitted to academic journals, to determine their worth, quality, methodological rigor, and utility and publish ability before appearing in the electronic and print media is warranted.

The publication process begins with a manuscript submission to a journal by an author, as shown in Figure 1 which outlines the editorial processes at Wiley - a manuscript goes through several stages before actual publication (Jefferson et al. 2007). The process outlines in Figure - 1 may be more elaborate than for some journals and the various tasks may be distributed differently across the editorial team but this figure includes all the possible steps that can take place in the publication process.

The first stage of the process is an editorial review that aims to assess the quality and merits

of a manuscript. The editor of the journal concerned reviews the manuscript to determine its relevance to the journal and suitability to undergo peer review, than further checks take place at the editorial desk by an editorial assistant, including checks for similarity to other sources using a similarity diction package. If the manuscript is too similar to other sources, it may be rejected or it may be unsubmitted and returned to the author for new amendment. Additional checks for readability and extent to which the manuscript conforms to the standard of the journal for e.g. word length and use of international reporting standards takes place this is done by a managing editor and again the manuscript may be rejected or returns to the author for amendment.

Once satisfied the managing editor assigns an editor, identifies and assigns 2 -3 reviewers with appropriate knowledge, skills, methodological expertise and experiences to assess the manuscript and feedback on its quality, rigor and publish ability Peer reviewers, feedback helps the editor to decide if the manuscript is rejected, accepted or needs revision before it can be accepted for publication.

Once the manuscript is accepted, it moves to the third stage, which is called production and ensures the production of a readable article free of spelling mistakes, and presented in the uniform style of a particular journal (Jefferson

et al. 2007). The author is also expected to check and approve the final proof before the final stage which is an administrative process.

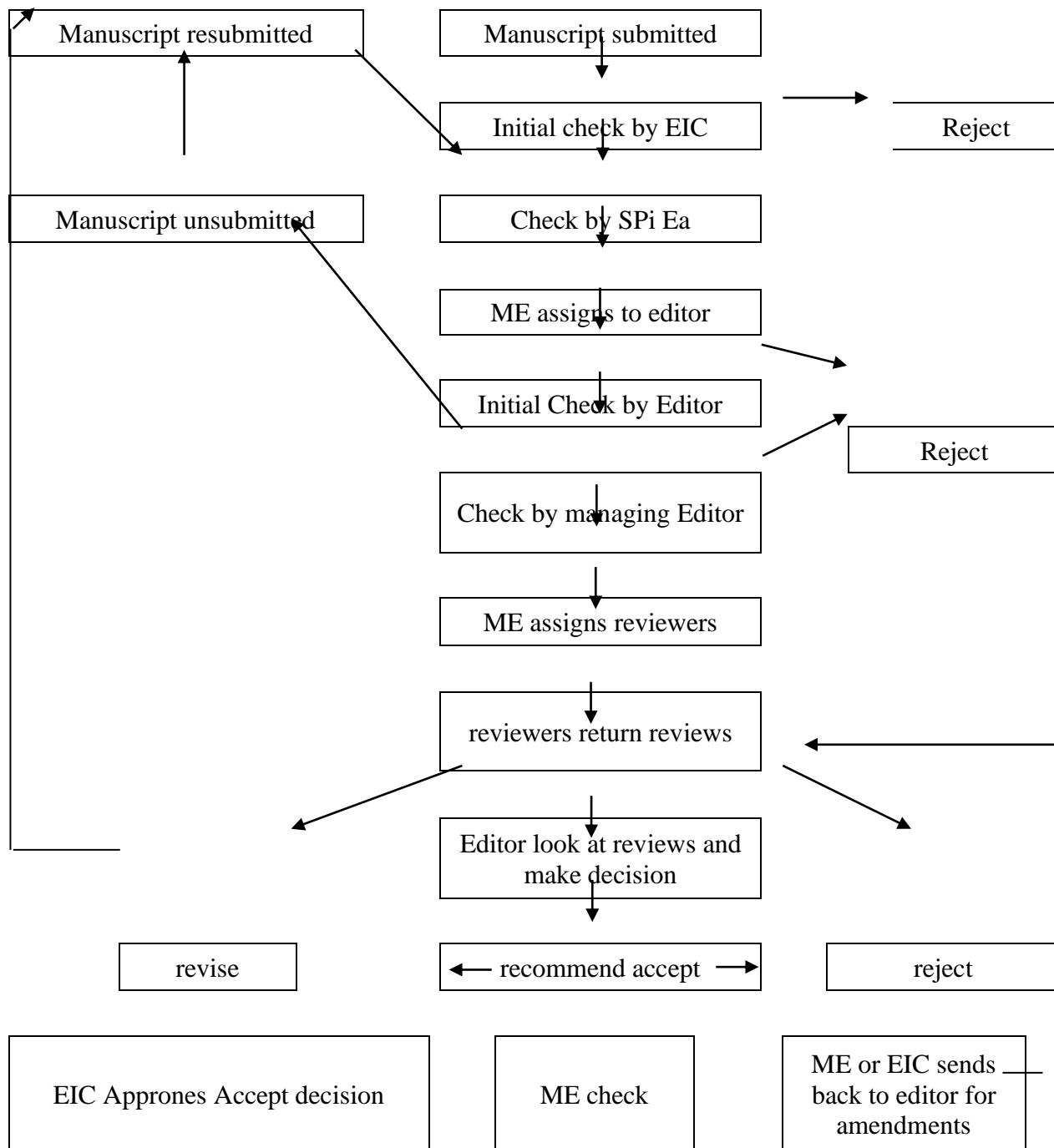


Figure - 1
Diagrammatic representation of Editorial Process including peer review. EIC, editor-in-chief : EA editorial assistant (SPi is a company providing editorial assistant): ME - Managing Editor.

The peer review process is also useful for peer reviewers themselves, as it their specific field. The peer review process can also affect society at large when a social policy implication is suggested or inferred from the published manuscripts (Hojal et al. 2003 p 76) In addition,

Publication of well written methodological sound and well informed research and scholarly papers help professions such as teacher to develop.

Quality Control

Research scholar or Researchers working in teams, spend so many of hours working on a specialized topic, often collecting empirical evidence and applying formal analytical techniques. They write papers and often benefit from pre submission peer reviews. They strive to follow standards for scientific work and they sign their names to their work.

These papers are then reviewed by people who are working in related areas but generally not on that same problem. So the reviewers have less experience with the problem than do the authors. But in some aspects such as methodology reviewers have more expertise.

Reviewers generally work without extrinsic rewards. Their names are not revealed, so their reputation do not depend on their high quality reviews perhaps this leads them to spend little time on their reviews. On average reviewers spend between two and six hours in reviewing a paper (Jauch & Wall 1989; King McDonald & Roderer 1981; Lock & Smith 1990) although they often wait for months before doing their reviews. Rarely do they contribute new data or conduct analysis. Typically, they are not held accountable for following proper scientific procedures. They match their opinions against the scientific work by the authors.

The editors decide whether to publish appears primarily based on two or three reviews. Author may appeal the decision and some journals have formal procedure for appeal. The editors of the "American Sociological Review" agreed with the authors on only 13% of the decisions that were appealed (Simon, Babanic & McPhail 1986).

A distressing aspect of the current quality system is that work by the best researchers is on average, judged by those who are less capable. This occurs if editors pick randomly from among potential reviewers (a "fair" procedure). Some editors may ask their best reviewers to examine papers by authors with good reputation.

False Cues :

Reviewers appear to base their judgments on cues that have only a weak relation to quality. Such cues include (1) Statistical significance (2) Large sample sizes (3) Complex procedure (4) Obscure writing Researchers might use these cues to gain acceptance of marginal papers

(Armstrong 1982). (Atkinson, Furlong & Wampold (1982) conducted an experiment to determine whether reviewers place too much emphasis on statistical significance. They prepared three versions of a bogus manuscript. Where identical findings differed by the level of statistical significance. The reviewers recommended rejection of the paper with no significant finding three times as often as the ones with significant findings. Interestingly, they based their decision to reject on the design of the study but the design was the same for all versions.

Large sample sizes are used inappropriately. Sometimes they are unnecessary for example; reviewers often confuse expert opinion studies with surveys of attitudes and intentions. While attitude and intentions surveys might require a sample of more than a thousand individual, expert opinion studies, which ask how others would respond, requires only 5 to 20 experts. (Armstrong 1985). Even when sample size is relevant, it is likely to be given too much weight.

Complex procedures serve as a favorable era for reviewers one wonders whether simpler procedures would suffice. For e.g. in the field of forecasting, where it is possible to assess the effectiveness of alternate methods, complex procedures seldom help and the sometimes harm accuracy (Armstrong 1985). Never the less, papers with complex procedures dominate the forecasting literature.

Obscure writing impresses academics For each paper they were randomly assigned either a complex version (using big words and long sentences, but holding content constant) the original text, or a simpler version. The professors gave higher ratings to authors of the most obscure passages. Apparently, such writing, being difficult to understand, leads the reader to conclude that the writer must be very intelligent, obscure writing also makes it difficult for reviewers and readers to find errors and to assess importance. To advance their careers, then researchers who do not have something important to say can obfuscate.

Utility of Peer Reviews:

There are many beneficiaries of the peer review process and these include authors, editors and

publishers, peer reviewers, disciplines and society. The process provides authors with an opportunity to improve the quality and clarity of their manuscript. Publishing in a peer reviewed journal is considered prestigious. Editors rely on the peer review system to inform the choice they make among the many manuscript competing for the few place available for publication (Broome et. al 2010, Lipworth at al 2011).

The Peer review process is also useful for peer reviewers themselves, as it help them to develop knowledge and expertise in their specific field. "The peer reviews process can also effect society at large when a social policy implication is suggested or inferred from the published manuscript." (Hojat et al 2003, P. 76) In addition publication of well written, methodologically sound and well informed research and scholarly papers help professions such as teaching to develop.

Type of Peer Review

There are two types of peer review (1) closed and (2) open. The former is more popular and authors and reviewers encounter both types of reviews. Closed reviews have two variant.

Closed Peer Review

Closed peer review is a system where either the identities of at least one of the parties in the review process - usually the reviewers are not disclosed. Closed reviews works in two ways: Single blind and double blind. In single blind the author is not aware of the reviewer's identities. While in double blind review is also used by many professional biomedical journals. In this approach, the authors and reviewers are not aware of each other's identities and institutional affiliation.

Open Peer Review

Open peer review is a system where author and reviewer are known to each other throughout

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the process. Proponents feline that this is a better approach as nothing is done in secret and the author's intellectual property rights are respected (Dividott & DeAngelis 2001). The approach may also act as a regulatory mechanism for the reviewers whom "Will produce better work and avoid offhand, careless or rude comments when their identities is known" (Ware 2008, P.6)

PPPR (Post Publication Peer Review)

It means that the review is performed once of the article is already published initially PPPR was only generally acceptable as a supplement to the peer review process not as a sole process (Ware 2008).

Conclusion

Peer reviewing is a voluntary activity, which means that the reviewers are not paid for their work and often complete reviews in their own time. While contributing to reviewing processes is a professional and moral obligation of any author whose work has undergone peer reviews? Recognizing reviewers for their work by publishing their names in the journal or providing them with awards and recognition certificate can be a useful strategy.

Recently, various publishers and journals have started using these strategies to recognise the reviewer's contribution. Peer review is one of the various mechanisms used to ensure the quality of publications in academic journals. It helps authors, journal editors and the reviewer themselves. All forms of peer review have their own strength and weakness. To make the process more effective and useful, it is important to develop peer review skills, especially in P.G. students. More research is needed to determine the effectiveness of peer review process.

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