

Reviewer roles and responsibilities*

Peer review is the principal mechanism by which the quality of research is judged. The quality of the peer review process and the quality of the editorial review board are cited as primary influences on a journal's reputation, impact factor and standing in the field.

Journals publishing peer-reviewed articles depend heavily on reviewers who typically volunteer their time and expertise. In most circumstances, at least two reviewers are invited to evaluate an article. In cases of controversy or disagreement regarding the merits of the work, an additional review may also be solicited or one of the journal's editors might give an evaluation. More than three reviewers are sometimes used if reviewers from several fields are needed to obtain a thorough evaluation of a paper.

In addition to fairness in judgment and expertise in the field, peer reviewers have important responsibilities toward authors, editors, and readers.

Reviewer responsibilities

Reviewer responsibilities toward authors

When reviewing an article that has been submitted to our journal, reviewers have a responsibility to the author to:

- provide written, unbiased feedback in a timely manner on the scholarly merits and the value of the work, together with the documented basis for the reviewer's opinion
- indicate whether the writing is clear, concise and relevant
- rate the work's composition, scientific accuracy, originality and interest to the journal's readers
- avoid personal comments or criticism
- maintain the confidentiality of the review process, i.e. do not share, discuss with third parties or disclose information from the reviewed paper.

* The information in this document is based on the Council of Science Editors 'Reviewer roles and responsibilities' formerly available from <http://www.councilscienceeditors.org/resource-library/editorial-policies/white-paper-onpublicationethics/2-3-reviewer-roles-and-responsibilities/>.

Reviewer responsibilities toward editors

When reviewing an article that has been submitted to our journal, reviewers have a responsibility to the editor to:

- notify the editor immediately if unable to review in a timely manner
- alert the editor about any potential personal or financial conflict of interest and decline to review when a possibility of a conflict exists
- comply with the journal's expectations for the scope, content and quality of the review
- provide a thoughtful, fair, constructive and informative critique of the submitted work
- determine the scientific merit, originality and scope of the work, indicate ways to improve it and recommend acceptance or rejection
- note any ethical concerns, such as violation of accepted norms of ethical treatment of animal or human subjects, or substantial similarity between the reviewed manuscript and any published paper or any manuscript concurrently submitted to another journal which may be known to the reviewer
- refrain from direct contact with the author.

Reviewer responsibilities toward readers

When reviewing an article that has been submitted to our journal, reviewers have a responsibility to journal readers to ensure that:

- the methods are adequately detailed to allow the reader to judge the merit of the study design and be able to replicate the study, if desired
- the article cites all relevant work by other researchers.

Reviewer selection

Editors choose reviewers whose expertise most closely matches the topic of the paper and invite them to review the paper. The editors also consider the number of articles sent to a reviewer so as not to overburden any one expert.

Ideally, the reviewer selection process and the journal's internal policies address the issue of potential bias by excluding reviewers from the same institution as that of the author(s) and by asking reviewers to disclose any potential conflict of interest. This 'bias screening' at the point of reviewer selection is incorporated into the online submission system whereby the reviewer is blinded to the author(s). The system uses a double-masked, or double-blind, system in which the reviewers do not know the identity of the authors or their affiliation.

Ethical responsibilities of reviewers

Confidentiality

Material under review should not be shared or discussed with anyone outside the review process unless approved by the editor. Material submitted for peer review is a privileged communication that should be treated in confidence. Reviewers should not retain copies of submitted articles and should not use the knowledge of their content for any purpose unrelated to the peer review process.

Although it is expected that the editor and reviewers will have access to the material submitted, authors have a reasonable expectation that the review process will remain strictly confidential.

Constructive critique

Reviewer comments should acknowledge positive aspects of the material under review, identify negative aspects constructively and indicate the improvements needed. Anything less leaves the author with no insight into the deficiencies in the submitted work. A reviewer should explain and support his or her judgment clearly enough that editors and authors can understand the basis of the comments. The reviewer should ensure that an observation or argument that has been previously reported be accompanied by a relevant citation and should immediately alert the editor when he or she becomes aware of duplicate publication. The purpose of peer review is not to demonstrate the reviewer's proficiency in identifying flaws. A reviewer should respect the intellectual independence of the author. Although reviews are confidential, all anonymous comments should be courteous and capable of withstanding public scrutiny.

Competence

Reviewers who realise that their expertise is limited have a responsibility to make their degree of competence in the subject matter clear to the editor. Reviewers need not be expert in every aspect of an article's content but they should accept an assignment only if they have adequate expertise to provide an authoritative assessment. A reviewer without the requisite expertise is at risk of recommending acceptance of a submission with substantial deficiencies or rejection of a meritorious paper. In such cases, the reviewer should decline the review.

Impartiality and integrity

Reviewer comments and conclusions should be based on an objective and impartial consideration of the facts, exclusive of personal or professional bias. All comments by reviewers should be based solely on the article's merit and originality, as well as on the relevance to the journal's scope and mission, without regard to race, ethnic origin, sex, religion or citizenship of the authors.

At all times, reviewers must display professional integrity and lack of bias. A reviewer should not take scientific, financial, personal or other advantage of material available through the privileged

communication of peer review, and every effort should be made to avoid even the appearance of taking advantage of information obtained through the review process.

Potential reviewers who are concerned that they have a substantial conflict of interest should decline the request to review and/or discuss their concerns with the editor.

Disclosure of conflict of interest

As far as possible, the review system is designed to minimise actual or perceived bias on the reviewer's part. If reviewers have any interest that might interfere with an objective review, they should either decline the role of reviewer or disclose the conflict of interest to the editor and ask how best to address it.

Timeliness and responsiveness

Reviewers are responsible for acting promptly, adhering to the instructions for completing a review and submitting it in a timely manner. Failure to do so undermines the review process. Every effort should be made to complete the review within the time requested. If it is not possible to meet the deadline for the review, the reviewer should promptly decline to perform the review or should inquire whether some accommodation can be made to resolve the problem.

Examples of reviewer impropriety

Reviewers should refrain from:

- misrepresenting facts in a review
- unreasonably delaying the review process
- unfairly criticising a competitor's work
- breaching the confidentiality of the review
- proposing changes that appear to merely support the reviewer's own work or hypotheses
- making use of confidential information to achieve personal or professional gain
- using ideas or text from a manuscript under review
- including personal criticism of the author(s)
- failing to disclose a conflict of interest that would have excluded the reviewer from the process.

Rewarding reviewers

It is appropriate to publicly thank reviewers for their generous volunteer efforts. This takes the form of a published list of reviewers that appears in the journal on a regular basis.