

Guidelines and templates for reviewers and associate editors

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WHY INSTITUTE A TEMPLATE FOR REVIEWS?

- Reviewer inexperience
- Even experienced reviewers miss important points
- Standardization of review elements

BACKGROUND: WHAT QUALITIES DISTINGUISH GOOD REVIEWS?

Journal of International Business Studies: Best reviews offer specific and constructive feedback to address problems, have a collegial tone (no harsh criticism).

Annals of Behavioral Medicine: Advocates that good reviews should be "respectful" and "offer corrective feedback" if the manuscript is eventually publishable.

Molecular Biology of the Cell: Be critical, but also provide constructive feedback. Be judicious about requiring extra work that is tangential to the manuscript's objective.

The Academy of Management Journal: Bad reviews are characterized by reviewers focusing on uncovering flaws and aggressively highlighting them (very little positive or constructive feedback).

AJR: Looked at reviewer quality scores based on level of sophistication, quality of feedback for improvement, amount of detail, and punctuality. Younger reviewers from academic institutions scored highest.

BACKGROUND: WHAT QUALITIES DISTINGUISH GOOD REVIEWS?In general:

- Collegial reviews that do not aggressively highlight flaws
- Positive and constructive feedback for improvement
- Judicious requirement of additional work
- Attention to detail

BACKGROUND: HOW TO ACCOUNT FOR REVIEWER PERCEIVED IMPORTANCE/IMPACT OF THE MANUSCRIPT?Dilemma:

- Incremental work: technically sound and hence may not be rejected by reviewers/associate editor.
- Promising but premature work: rejected from a technical perspective, but potentially high impact if given feedback for improvement.

Several journals use an importance scale with some acceptance threshold.

BACKGROUND: WHO SHOULD BE ASKED TO REVIEW?Author-suggested reviewers vs. editor-suggested reviewers:

Overwhelmingly, author-suggested reviewers are more positively biased towards the submissions analyzed in these journals: Atmospheric Chemistry and Physics, Journal of Clinical Investigation, British Journal of Surgery, Journal of Investigative Dermatology, BMC series, Angewandte Chemie International Edition.

In general:

Select reviewers who are not biased one way or the other.

BACKGROUND: CAN PUBLIC EVALUATION, IN ADDITION TO SINGLE-BLINDED REVIEWS, ENHANCE PEER REVIEW?

Some examples:

Nature: sent for peer review and posted to a website for signed comments. Despite advertising and soliciting key members of the scientific community to write comments, very few responded (“like ‘pulling teeth’ to obtain any comments”). On average only 3 comments per paper. Comments were generally unhelpful – low editorial and technical value.

Atmospheric Chemistry and Physics: First-stage review is conducted by reviewers and editors, then put on electronic discussion board for scientific community signed comments (second stage). Comments from scientific community added very little to those from blinded peer reviewers.

In general: public evaluation provides little added benefit.

BACKGROUND: IS THERE BIAS IN REVIEWER SELECTION?

Ideally:

- Reviewers who are experts in the subject matter

In reality:

- Reviewers are selected based on personal knowledge
- If associate editor searches for reviewers using a database, choices are usually alphabetically arranged – resulted in clear bias in AJR, where reviewers with last names at the beginning of the alphabet were twice as likely to be asked to review.

MEDICAL PHYSICS REVIEWER TEMPLATE

- Designed by WG1
- Will enter limited release testing phase soon
- Will be revised based on testing phase feedback before final release
- Divided into 2 major sections:
 1. Overall assessment (mandatory): free form review, suggestions for improving manuscript, importance scale.
 2. Section-specific feedback (optional): alerts reviewer to key elements in each section of the manuscript.

MEDICAL PHYSICS REVIEWER TEMPLATE

OVERALL ASSESSMENT

Rate the importance of this manuscript to other researchers/clinical practice in terms of impact and new knowledge on a scale from 1-9 (1-3: high importance, 4-6: medium importance, 7-9: low importance)

Manuscript in its current form (enter number): Optional Comment:

Manuscript after reviewer suggestions are incorporated (enter number): Optional Comment:

Free-form review (please enter your review; you may choose to enter only those comments not covered by the categories below):

Recommendations for improving manuscript (aside from those entered in the section-specific feedback below)

MEDICAL PHYSICS REVIEWER TEMPLATE

PLEASE GIVE US YOUR SECTION-SPECIFIC FEEDBACK

THIS PART IS OPTIONAL, BUT YOUR FEEDBACK WOULD HELP OUR ASSESSMENT.

(You need not answer all questions, unless relevant. The editor encourages referees to comment on any aspect of the manuscript that they think will help the editor and associate editor make a decision. This includes strengths as well as weaknesses.)

READABILITY	Overall readability score on a scale of 1-9 (1-3: good, 4-6: acceptable, 7-9: poor): <input type="text"/> Comment: <input type="text"/> Acceptable language and grammar? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Comment: <input type="text"/>
TITLE	Is title clear and appropriate (not overreaching)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Are keywords appropriate? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>
ABSTRACT	Can the Abstract be understood without reading the manuscript? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Does the Abstract appropriately summarize the manuscript, without omitting important results or overreaching? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>
INTRODUCTION	Is the topic of clinical and/or scientific importance? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Is previous work adequately discussed and referenced? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Is the rationale provided by the authors sufficient? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Is the purpose of the study clearly defined? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Is the purpose/methodology novel? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>

MEDICAL PHYSICS REVIEWER TEMPLATE

METHODS	Methods clearly stated and organized, i.e., no ambiguities or missing information? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Is methodology appropriate and sufficient for the stated purpose? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Sufficient, not excessive, duplication from previous publications? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Enough detail for others to reproduce work? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>
RESULTS	Results presented clearly in logical order? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Are all items in purpose/methods sufficiently addressed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>
DISCUSSION	Are arguments appropriate and not overreaching? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Are all important points discussed (e.g., limitations, unexpected results)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>
CONCLUSIONS	Are conclusions justified by results found in study? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>
FIGURES	All figures necessary and none to be added? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Figure legends self-explanatory and figures sufficiently clear? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>
TABLES	Tables acceptable and none to be removed/modified? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>
REFERENCES	Are important references included and list not too lengthy? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/> Are references appropriately quoted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comment: <input type="text"/>
