How to write a peer review

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Why to peer review?

- Important service to the scientific community
- Based on reciprocity
- Requires expertise, critical thinking, ability to give feedback, sensitivity to the feelings of authors
- Aim: to provide neutral, fair and balanced assessment to assist editor the decision process

Benefits of reviewing

- Helps to remove reviewer's bias (own mistakes)
- Improves communication of results to audience
- Can bring new ideas, overlooked literature
- Develops critical thinking
- Opens new advances in methods
- You can earn Publons credit
- You can publish via platform Peerage of Science

When to accept?

Accept if:

- It is within your area of expertise
- It is free of conflict of interest
- You have sufficient time by deadline

Otherwise do not accept

Reading

- Read it at last twice
- Make notes
- Pause and think
- Do not hurry with the review
- Remember that authors read the paper more times than you did

Review forms

- A few journals provide review forms with dozens of detailed questions
- Many journals have simple forms with a few questions
- Some journals provide no forms at all
- Some journals offer single-double-blind reviews

Report

To authors:

- A brief summary – what the paper is about
- General assessment
- Major concerns
- Minor comments

To editor:

- A short overall assessment for the editor
- Acknowledge your lack of expertise to the editor with stats, for example
- Sign review?

General assessment

- How novel and important to the field the paper is?
- Highlight strengths
- Are you convinced about the results?
- Does it answer questions set in Intro?
- Are methods used suitable to answer the research question?
- Do findings support claims in the paper?
- Is it well-written – understandable to the audience of the journal?
- Is it suitable for the journal?

Major concerns

- Does the theory connects to data?
- Is the study rationale clearly articulated?
- Do hypotheses follow logically?
- Are methods robust and well controlled?
- Are statistical analyses appropriate?
- Are results well interpreted and discussed?
- Is presentation of results clear?
- Is Introduction and Discussion well developed?

Minor comments

- Is the manuscript well organized?
- Are methods clearly explained?
- Are tables and figures well explained, self-explanatory and connected to the text?
- Check for typos
- Grammar mistakes
- Does the manuscript follows submission guidelines?
- Other formatting issues
- Missing references

Avoid

- Personal judgments or value-ladden adjectives
- Always criticize the paper not the authors
- Make a constructive critique
- Remember that authors know more about the study system than you
- Try to be "in authors shoes" – consider his means (e.g., financial), logistic problems, etc.
- Avoid suggestion to replace by a completely different study

Recommendation

- Accept (without any change) – only typos
- Minor revision – minor problems
- Major revision/resubmission – solid data and design but flaws in interpretation, inappropriate analyses
- Reject – badly written, poor English, weak data, serious flaws

Journal editors

- Are your colleagues (other researchers)
- May do the job for free – have little time for assessment
- Work hard to improve the journal quality
- Have to deal with too many submissions – many contributions must be rejected

Receiving decision

- Accepted
- Revision invited
- Rejection with/without a review

- if rejected do not feel discouraged it is normal
- Consider writing rebutal letter to the editor
- Reformat and submit elsewhere

Response to reviewers'

- Respond to every comment
- In most cases comments are due to misunderstanding - rephrase
- Re-submit before given deadline