Strategies for Publications and Reviews

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What makes a good paper?

• Every paper must present at least one clear result that advances our knowledge.

• Follow a standard scientific style:
  o Abstracts: Summarize the article briefly
  o Introduction: What did you do? Why did you do it?
  o Methods: How did you do it?
  o Results: What did you find?
  o Discussion: What does it all mean?
Steps to preparing a manuscript

• Prepare the figures and tables.
• Write the Methods.
• Write up the Results.
• Write Discussion of your results before writing the introduction.
  ○ This helps you objectively demonstrate the scientific significance of your work in preparing the introduction.
• Write a clear Conclusion.
• Write a compelling introduction.
• Write the Abstract.
• Compose a concise and descriptive Title.
• Select Keywords for indexing.
• Write the Acknowledgements.
• Write up the References.
A figure is worth a thousand words

• Hence, illustrations, including figures and tables, are the most efficient way to present your results. Your data are the driving force of the paper, so your illustrations are critical!

• Avoid crowded plots, use well-selected scales.

• Think about appropriate axis label size

• Include clear symbols and data sets that are easy to distinguish.
Write effective discussion

• You must respond to what the results mean.
  - Probably it is the easiest section to write, but the hardest section to get right. This is because it is the most important section of your article.
  - Many manuscripts are rejected because the Discussion is weak.

• You need to make the Discussion corresponding to the Results, but do not reiterate the results.

• Tips:
  - Avoid statements that go beyond what the results can support.
  - Avoid unspecific expressions such as "higher temperature", "at a lower rate", "highly significant". Quantitative descriptions are always preferred (e.g., 35°C, 0.5%, p<0.001, respectively).
  - Avoid sudden introduction of new terms or ideas.
Speculations on possible interpretations are allowed, but these should be rooted in fact, rather than imagination. To achieve good interpretations think about:

- How do these results relate to the original question or objectives outlined in the Introduction section?
- Do the data support your hypothesis?
- Are your results consistent with what other investigators have reported?
- Discuss weaknesses and discrepancies. If your results were unexpected, try to explain why.
- Is there another way to interpret your results?
- What further research would be necessary to answer the questions raised by your results?
- Explain what is new without exaggerating.
Basic requirements to a reviewer

- Be professional
- Be pleasant
- Be scientific
- Be timely
- Be unbiased
- Be organized
Top reasons reviewers reject your the paper

1. Inadequate description of methods
2. Discussion that only repeats the results but does not interpret them
3. Insufficient explanation of the rationale for the study
4. Insufficient literature review
5. Conclusions that do not appear to be supported by the study data
6. Introduction that does not establish the background of the problem studied.
Basic requirements to an editor

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• **Be Sensible:**
  o Aim for the highest standards.
  o Being brave enough to reject poor papers and dealing with the consequences.

• **Keep up-to-date with new discoveries in the field**
  o Maintain a strong understanding of current literature

• **Deal with the issues of reviewers:**
  o Learn to know the rivalries in the field

• **Always read the paper:**
  o Do NOT just write "Based on these reviews, your paper may be accepted after revisions."
Responding to Reviewers

• It is rare that the reviewer is completely right, and the author completely wrong, or vice versa.

• The Rules of Thumb is to address all reviewer comments in details.
  o Answer ALL the points thoroughly.
  o If you disagree, explain exactly why in a polite and detailed manner.
  o Remove contested statements only if they are unnecessary; If necessary support the statement.
  o If a reviewer misunderstood, first assume that your explanation isn’t clear

• Papers can be rejected because authors do not respond properly to criticism.
If your paper is rejected 😞...

• **Acceptance Rate Statistics (2015):**
  - Science/Nature: < 6%.
  - Geophysical Research Letters: 30%
  - JGR-Atmosphere: 63%
  - Earth and Space Science: 55%

• **Editors reject paper before review**
  - The scope of the paper was not correct—topics that are not of interest to the journal’s readership;
  - It is obviously poor.

• **Editor reject paper after review**
  - The Editor/Reviewers are not convinced your results bring in new increment in terms of our understand or new advancement in the field.
    - If you are convinced that the editor/reviewers completely misunderstood the paper, contact the editor and ask to revise and resubmit, or submit elsewhere.