How to increase your chances of having a paper accepted

The purpose of written material is to help Chinese sudents of CIB to increase their potential in scientific writing. Provided sugestions are based on the personal experiences and different online sources.

TO WRITE AN ARTICLE IS YOUR OPPORTUNITY TO CONVINCE READERS THAT YOU CLEARLY KNOW WHY YOUR WORK IS USEFUL. THERE IS NO SECRET RECIPE FOR SUCCESS, JUST SOME SIMPLE RULES, DEDICATION AND HARD WORK

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SOME GENERAL (but very important) TIPS BEFORE YOU START TO WRITE

1. Think about WHY you want to publish your work - and whether it's publishable

At the beginning of your research you must **clearly pointed out your hypothesis**. Maybe during the ongoing research it will be buildup or slightly altered but you always need to check if the hypothesis and the survey/experiment design are publishable. Ask yourself:

- Have I done something new and interesting?
- Is there anything challenging in my work?
- Is my work related directly to a current hot topic?
- Have I provided solutions to some difficult problems?

If all answers are "Yes," then you can start preparations for your manuscript. If any of the responses are "No," you can probably submit your paper to a local journal or one with lower Impact Factor. When responding to these questions, you should keep in mind that reviewers are using questionnaires in which they must respond to questions such as:

- Does the paper contain sufficient new material?
- Is the topic within the scope of the journal?
- Is it presented concisely and well organized?
- Are the methods and experiments presented in the way that they can be replicated again?
- Are the results presented adequately?
- Is the discussion relevant, concise and well documented?
- Are the conclusions supported by the data presented?
- Is the language acceptable?
- Are figures and tables adequate and well designed? Are there information duplicated? Are they too many?
- Are all references cited in the text included in the references list?

2. Decide what TYPE OF THE MANUSCRIPT to write

You have at least three options on the type of manuscript:

1. **Full articles, or original articles,** are the most important papers. Often they are substantial completed pieces of research that are of significance as original research.
2. **Letters/rapid communications/short communications** are usually published for the quick and early communication of significant and original advances. They are shorter than full articles (usually strictly limited in size, depending on each journal).
3. **Review papers or perspectives** summarize recent developments on a specific hot topic, highlighting important points that have previously been reported and introduce no new information. Normally they are submitted on invitation by the editor of the journal.

When looking at your available information, you must self-evaluate your work: Is it sufficient for a full article, or are your results so thrilling that they should be shown as soon as possible? You should ask your supervisor or a colleague for advice on the

manuscript type to be submitted. **Remember also that sometimes outsiders – i.e., colleagues not involved in your research - can see things more clearly than you.**

3. CHOOSE the target journal

- A common question is how to select the right journal for your work. Do not gamble by scattering your manuscript to many journals at the same time. Only **submit once and wait for the response** of the editor and the reviewers.
- The most common way of selecting the right journal **is to look at the articles you have consulted to prepare your manuscript**. Read very recent publications in each candidate journal.
- Also consider the high rejection rates of the journals (e.g., *Nature*, *Science*, *The Lancet* and *Cell* are >90 percent), and if your research is not very challenging, focus in more humble journals with lower Impact Factors.

4. Pay attention to journal requirements in the GUIDE FOR AUTHORS

- After selecting the journal for submission, go to the web page and **download the Guide for Authors, print out it and read the guidelines again and again!**
- They generally include detailed editorial guidelines, submission procedures, fees for publishing open access, and copyright and ethical guidelines. **You must apply the Guide for Authors to your manuscript**, even the first draft, using the proper text layout, references citation, nomenclature, figures and tables, etc.
- The general structure of an article follows the **IMRaD** format, introduced as a standard by the American National Standards Institute in 1979, which responds to the questions below:
    - ✓ **I**ntroduction: What did you/others do? Why did you do it?
    - ✓ **M**ethods: How did you do it?
    - ✓ **R**esults: What did you find?
    - ✓ **D**iscussion: What does it all mean?

5. Understand PUBLICATION ETHICS TO AVOID VIOLATIONS

One of the worst things in science is plagiarism. **Plagiarism and stealing work from colleagues can lead to serious consequences, both professionally and legally**. Violations include data fabrication and falsification, improper use of human subjects and animals in research, and using another author's ideas or wording without proper attribution.

STEPS TO ORGANIZING YOUR MANUSCRIPT

Before you set out to write a paper, there are two important things you should do that will set the groundwork for the entire process:

- The topic to be studied should be the first issue to be solved. Define your hypothesis and objectives (These will go in the Introduction.)
- Review the literature related to the topic and selects some papers that can be cited in your paper (These will be listed in the References.)

There are several types of approaches to writing an article, but below specified steps follow a logical sequence of properly formatting your results and insights to written shape.

1. **Prepare the figures and tables**
2. Write the **Methods**
3. Write up the **Results**
4. Write the **Discussion**
5. Write a clear **Conclusion**
6. Write a compelling **Introduction**
7. Write the **Abstract**
8. Compose a concise and descriptive **Title**
9. Select **Keywords** for indexing
10. Write the **Acknowledgements**
11. Write up the **References**

STEP 1: PREPARE THE FIGURES AND TABLES

- Remember that "a figure is worth a thousand words."
- 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!
- Tables give the actual experimental results, while figures are often used for comparisons of experimental results with those of previous works, or with calculated/theoretical values. Note: **Never include vertical lines in a table**. Pay attention to the size of letters, use of decimals (always use dots, not commas) and position of units, lines etc. and its adequate use for a clearer table.
- Another common problem is the misuse of lines and histograms. **Lines joining data** only can be used when **presenting time series or consecutive samples** data. When **there is no connection between samples** or there is not a gradient, you **must use histograms**.
- Whatever your choice is, **no illustrations should duplicate the information described elsewhere in the manuscript.**
- Figure and table legends must be **self-explanatory.** Each table and figure should have a self-contained caption so that a skimming reader can understand the fact presented without having to go searching through the text for things like the definitions of Greek letters.
- When presenting your tables and figures:
    - Avoid crowded plots, using only three or four data sets per figure; use well-selected scales.
    - Think about appropriate axis label size.

- Include clear symbols and data sets that are easy to distinguish.
- Never include long boring tables (e.g. chemical compositions of emulsion systems or lists of species and abundances). You can include them as supplementary material.
- If you are using photographs, each must have a **scale marker, or scale bar**, of professional quality in one corner.

STEP 2: WRITE THE METHODS

- This section responds to the question of **how the problem was studied**.
- If your paper is proposing a new method, you need to include **detailed information so a knowledgeable reader can reproduce the experiment**.
- **Do not repeat the details of established methods.** Use References and Supporting Materials to indicate the previously published procedures.
- It's important to **use standard systems for numbers and nomenclature**. Present proper control experiments and statistics used, again to make the experiment of investigation repeatable.
- List the methods in the same order they will appear in the Results section, in the logical order in which you did the research:
- Avoid adding comments, results, and discussion, which is a common error.

STEP 3: WRITE UP THE RESULTS

- This section responds to the question "What have you found?"
- Only representative results from your research should be presented and they should be essential for discussion.
- Use **sub-headings to keep results** of the same type together, which is easier to review and read.
- Present result in a logical order (same order as presented in the methods section).
- An important issue is that **you must not include references in this section**; you are presenting *your* results, so you cannot refer to others here.
- Indicate the statistical tests used with all relevant parameters:
  - Use mean and standard deviation to report normally distributed data.
  - Use median and interpercentile range to report skewed data.
  - For numbers, use two significant digits unless more precision is necessary (2.08, not 2.07856444).
  - Never use percentages for very small samples e.g., "one out of two" should not be replaced by 50%.

STEP 4: WRITE THE DISCUSSION

- It is the most important section of your article. Here you must respond to what the results mean. Probably it is the easiest section to write, but the hardest section to get right.
- You need to make the Discussion corresponding to the Results, but do not reiterate the results. Here you need to compare the published results with yours (using some of the references included in the Introduction).
- Never ignore work in disagreement with yours, in turn, you must confront it and convince the reader that you are correct or better.
- Avoid:
  - Statements that go beyond what the results can support.

    - Unspecific expressions such as "higher temperature", "at a lower rate", "highly significant". Quantitative descriptions are always preferred (35ºC, 0.5%, $p<0.001$, respectively).
    - Sudden introduction of new terms or ideas; you must present everything in the introduction, to be confronted with your results here.
- 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.

STEP 5: WRITE A CLEAR CONCLUSION

- This section shows **how the work advances the field from the present state of knowledge**.
- Without a clear conclusion section, reviewers and readers will find it difficult to judge your work and whether it merits publication in the journal.
- A common error in this section is repeating the abstract, or just listing experimental results. **Trivial statements of your results are unacceptable in this section**.
- You should provide a clear scientific justification for your work, and indicate uses and extensions if appropriate.
- You can suggest future experiments and point out those that are underway.
- You can propose present global and specific conclusions, in relation to the objectives included in the introduction.

STEP 6: WRITE A COMPELLING INTRODUCTION

- Before start writing this section firstly finalize the Results and Discussion. This is because, if the discussion is insufficient, how can you objectively demonstrate the scientific significance of your work in the introduction?
- The function of an introduction is to present the question being asked and place it in the context of what is already known about the topic. Background information that suggests why the topic is of interest and related findings by other scientists are usually mentioned here. So, you need to introduce the main scientific publications on which your work is based, citing a couple of original and important works, including recent review articles.
- Start Introduction with a general background of the topic; add 2-3 paragraphs that discuss previous work and then point out issues that are being addressed in the present work. The end of the Intro is a good place to state: Objectives, or Hypothesis, or Research Question.
- In other words, this section should contain:
    - a description of the nature of the problem and current state of knowledge or understanding at the beginning of the investigation (background);

- a statement of the purpose, scope, and general method of investigation in your study;
- hypothesis/hypotheses and predictions.

Some additional tips for the introduction:

- **Never use more words than necessary,** be concise and to-the-point.
- The introduction **must be organized from the global to the particular point of view**, guiding the readers to your objectives when writing this paper.
- State the purpose of the paper and research strategy adopted to answer the question, but **do not mix introduction with results**, **discussion and conclusion**. Always keep them separate to ensure that the manuscript flows logically from one section to the next.
- **Hypothesis and objectives must be clearly remarked at the end of the introduction.**

STEP 7: WRITE THE ABSTRACT

- The abstract **provides a short description of the perspective and purpose** of your paper. It gives key results but minimizes experimental details. It is very important to remind that the abstract offers a short description of the interpretation/conclusion in the last sentence. The abstract **must be keep as brief as possible**. A clear abstract will strongly influence whether or not your work is further considered.
- In an abstract, the two *whats* are essential. The abstract tells prospective readers **what you did** and **what the important findings** in your research were. Together with the title, it's the advertisement of your article. Make it interesting and easily understood without reading the whole article. Avoid using jargon, uncommon abbreviations and references.

STEP 8: COMPOSE A CONCISE AND DESCRIPTIVE TITLE

- The title must explain what the paper is broadly about. It is your first (and probably only) opportunity to attract the reader's attention. In this way, remember that the first readers are the Editor and the referees. Also, readers are the potential authors who will cite your article, so the first impression is powerful!

STEP 9: SELECT KEYWORDS FOR INDEXING

- Keywords are used **for indexing** your paper. They are **the label** of your manuscript.
- Avoid words with a broad meaning and words already included in the title.
- Some journals require that the keywords are not those from the journal name, because it is implicit that the topic is that. For example, the journal *Soil Biology & Biochemistry* requires that the word "soil" not be selected as a keyword.

STEP 10: WRITE THE ACKNOWLEDGEMENTS

- You can thank people who have contributed to the manuscript (technical help and assistance with writing and proofreading). The most important thing is to thank your funding agency or the agency giving you a grant or fellowship. In the case of projects, do not forget to include the grant number or reference.

STEP 11: WRITE UP THE REFERENCES

- Typically, there are more mistakes in the references than in any other part of the manuscript. It is one of the most annoying problems, and causes great headaches among editors. Now, it is easier since to avoid these problem, because there are many available tools (can use any software, such as EndNote or Mendeley.
- In the text, **you must cite all the scientific publications on which your work is based** but, do **not over-inflate** the manuscript with too many references – it doesn't make a better manuscript! **Avoid excessive self-citations** and excessive citations of publications from the same region. **Minimize personal communications**, **do not include unpublished observations**, **manuscripts submitted but not yet accepted for publication, publications that are not peer reviewed.** Make the **reference list and the in-text citation conform strictly to the style given in the Guide for Authors**. Remember that presentation of the references in the correct format is the responsibility of the author, not the editor. Finally, check the following:
    - Spelling of author names
    - Year of publications
    - Usages of *"et al."*
    - Punctuation
    - Whether all references are included

KEEP ON YOUR MIND THESE TOO

POSIBLE REASONS FOR REJECTION OF YOUR ARTICLE

1. It fails the technical screening

Before they even go to the editor-in-chief, articles are checked for technical elements. The main reasons they are rejected are:

- The article contains elements that are suspected **to be plagiarized**, or it **is currently under review at another journal**. (Republishing articles or parts of articles, submitting to one or more journals at the same time or using text or images without permission is not allowed. See our ethical guidelines.)
- The manuscript **is not complete**; it may be lacking key elements
- The **English is not sufficient** for the peer review process,
- The **figures are not complete or are not clear enough** to read.
- The article **does not conform to the Guide for Authors** for the journal it is submitted to.
- **References are incomplete** or very old.

2. It does not fall within the Aims and Scope

- Exsampe for the journal *Diatom Research* - the study uses a diatom material but the focus is on something different.
- There is no new diatom science.

3. It's incomplete

- The article contains observations but is not a full study.
- It discusses findings in relation to some of the work in the field but ignores other important work.

4. The procedures and/or analysis of the data are seen to be defective

- The study lacked clear control groups or other comparison metrics.
- The study did not conform to recognized procedures or methodology that can be repeated.
- The analysis is not statistically valid or does not follow the norms of the field.

5. The conclusions cannot be justified on the basis of the rest of the paper

- The arguments are illogical, unstructured or invalid.
- The data does not support the conclusions.
- The conclusions ignore large portions of the literature.

POSIBLE REASONS FOR ACCEPTION OF YOUR ARTICLE

1. **It provides insight into an important issue**
2. **The insight is useful to people who make decisions**
3. **The insight is used to develop a framework or theory**
4. **The insight stimulates new, important questions**
5. **The methods used to explore the issue are appropriate**
6. **The methods used are applied rigorously and explain why and how the data support the conclusions**
7. **Connections to prior work in the field or from other fields are made** and serve to make the article's arguments clear
8. **The article it is well written and easy to understand**, the arguments are logical and not internally contradictory

Useful general points

- Read your own work **out loud**. If you find it hard to speak then something is wrong with the text. Ask yours friends (or co-authors) to read carefully your work.
- Follow the rule "first describe what you do, then explain it, compare it to alternatives, and compare it to others' procedures" at the micro level as well as the macro level. For example, in describing a data transformation, just start with "I adjust income by the square root of household size". Then tell us why adjusting is important, and then talk about different adjustment functions. Most writers do all this in the reverse order.
- Strive for precision. Read each sentence carefully. Does each sentence say something, and does it mean what it says? **Clarity is essential** (need to read swiftly, no room for ambiguity, English may not be the readers 1st language. Rules for clarity: **Use short sentences** which express single concepts; **Avoid clever clauses and parentheses**; **If in doubt, keep it simple**
- **Document your work.** A fellow graduate student must be able to sit down with your paper and all alone reproduce every number in it from instructions given in the paper, and any print or web appendices. The usual student paper falls short here.
- **Simple is better.** Most students think they have to dress up a paper to look impressive. The exact opposite is true.
- Much bad writing comes down to trying to avoid responsibility for what you're saying. Take a deep breath, and take responsibility for what you're writing.
- Don't use adjectives to describe your work: "striking results" "very significant" coefficients, etc. If the work merits adjectives, the world will give them to you.
- "Where" refers to a place. "In which" refers to a model. Don't write "models where consumershave uninsured shocks," write "models in which consumers have uninsured shocks."
- Don't abbreviate authors' names, "FF show that size really does matter." There is always enough space to spell out people's names. You'd want them to write out yours, no?