



## Points to Ponder for Drafting a Scientific Publication

Every researcher aspires to finish their research with a top-notch research paper. The only way for people to understand how hard you worked is through your writing. Your methods for presenting the facts and your writing style all come together to provide a complete picture of you, regardless of whether you write an abstract, a research paper, research proposals, or a thesis. Given the extreme importance of a research paper, here are some guidelines that can make the challenging process of writing easier.

### **Step 1: Decide on site of Submission**

**Don't:** Begin writing your manuscript without knowing where you will submit it.

**Do:** Pick a journal early on in the process, aligning the scope and depth of your research to the requirements of the journal. Failure to choose the journal that is "best fit" can delay the publishing of your data and force you to spend a lot of time and effort reformatting your paper.

### **Step 2: Convert your figures into their final form**

**Don't:** Avoid losing track of your data.

**Do:** The first and most important stage is to finalize your figures because they will be closely related to every portion of your paper. Pay close attention to the appropriate use of colour, figure size, desired fonts, and the placement of labels and text.

**Don't:** Subject your reader to all of your frustrations and inadequacies.

**Do:** Pay attention to your findings rather than your errors and failures. Using chronological order might not be the best option. Organize your figures in a reasonable way to present the "story".

**Don't:** Create composite figures with ambiguous titles.

**Do:** Create each figure with a single, distinct point in mind and identify that point in the figure's title.

**Don't:** Make it difficult for the reader to follow the data in your figures.

**Do:** Position figure panels so that the viewer's eyes will naturally follow the correct sequence. Remember that figure panels will be correspondingly sized for publication.

**Don't:** Avoid cutting corners while submitting your figures.

**Do:** Submit high-resolution figures. Reviewers may assume that you worked hastily and carelessly both in the lab and on the computer if the figures are hazy.

### **Step 3: Compose Legends, Materials, and Methods**

**Don't:** Write these sections until the article has been completed.

**Do:** Write your figure legends and materials and methods section as soon as you have a clear idea of your figures. Include a brief summary of your data in the order it appears in each figure legend. Legends shouldn't completely repeat the information in the material and methods section, but they should help make the figures understandable on their own. On the other hand, the methods section must be thorough and contain sufficient information to enable the reader to reproduce the studies that you are reporting.

### **Step 4: Compose your title and abstract**

**Don't:** Lose the concentration you attained while finalizing your figures.

**Do:** Write the abstract before the results section, as instructed. Use the journal's abstract word limit to your advantage, not against it. Concentrate on the title once your abstract has been finalized. What will or won't entice readers to your article is the title. Inaccuracy could lower your article's recall in your field because it will be utilized to index your material. Instead of being a descriptive sentence, the title should be a brief label that summarizes exactly what the manuscript is related to.

### **Step 5: Summarize Your Findings**

**Don't:** Repeat the information from the section on materials and methods, since this is not the appropriate place to discuss the relevance of your findings.

**Do:** Clearly explain your data in the order that it appears in the figures. If as all possible, group the results into sections with headings that closely resemble the titles of your figures. Readers benefit greatly from a one-sentence summary at the end of each subsection.

### **Step 6: Compose your discussion**

**Don't:** Emphasize results that could be interpreted as incidental findings or reiterate the results section.

**Do:** Place your research findings in a broader scientific perspective. Discuss their contributions to the field and provide justifications for any facts that conflict with prior research. The discussion should be written in a scholarly and professional manner.

### **Step 7: Compose the introduction and reference sources of your work**

**Don't:** Neglect to highlight the significance of your research.

**Do:** Define the unanswered questions that determine the research's direction.

**Don't:** Be sloppy while giving author credit, identifying potential conflicts of interest, or disclosing author information.

**Do:** Spend the effort needed to guarantee that the coauthors and other collaborators, as well as anyone else referenced in the paper, are appropriately credited. Check the journal's instructions for further clarification on these matters.

### **Step 8: Draft the cover letter**

**Don't:** Consider the cover letter as a formality with minimal significance.

**Do:** Give the cover letter some thought. You get the chance to speak directly to the editor(s) and reviewer(s) and share with them why you think your work is significant and deserves to be published in their journal. The cover letter is customarily addressed to the journal's editor in chief.

**Don't:** Merely recycle old cover letters.

**Do:** If necessary, edit reused cover letters. Make sure to adjust research-related statements as appropriate to match the journal's requirements.

### **Step 9: Submission of Manuscript**

**Do not:** Submit without consulting anyone else.

**Do:** Once you have a strong draft, ask for feedback from your peers and then modify and edit as necessary.

**Don't:** Submit without obtaining the required permissions.

**Do:** Distribute a copy to each coauthor and get their permission before publishing.

**Don't:** Overlook raising up issues with copyright.

**Do:** Specify in the statement that the work has not been submitted to or is presently being reviewed by another journal. Review the policies and procedures of the desired journal after you've finished the previous steps. Upload your cover letter, text, and figures as directed by the journal, then hit SUBMIT!

### **Step 10: Reply to the Reviewers**

**Don't:** Upon reviewing the article, avoid looking for biases and malicious intentions.

**Do:** Begin by assuming that the reviewer was objective and invested a significant amount of time comprehending your work. After all, this is the most likely situation; assuming the opposite is apparently pointless. If a reviewer's tone strikes you as snarky, dismiss it and concentrate on the comment's main point.

**Don't:** React to these criticisms in a hurried manner, not even to your coauthors. Avoid stirring any possibly sensitive emotions.

**Do:** Compose a thoughtful reply to the criticism and a list of modifications and follow-up activities.

This editorial addresses the ways to structure a manuscript. Similar to how an artist may thoughtfully choose a frame to best display a work of art, authors need to think about how they will display their research contribution.

**Dr Vivek V. Nair**  
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