



**Write and Publish a Research
Paper: 101 Tips from Journal Prep**

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Planning Your Manuscript

1. The research topic should be unique and there should be a logical reason to study it.
2. Do your homework. Make sure you know what the investigators in your field – and those in other fields – have published about your topic (or similar topics). There is no substitute for a good literature review before jumping into a new project.
3. Take the time to plan your experimental design. As a general rule, more time should be devoted to planning your study than to actually performing the experiments (though there are some exceptions, such as time-course studies that feature lengthy time points). Rushing into hands-on work without properly designing the study is a common mistake made by researchers early on in their careers.
4. When designing your experiment, choose your materials wisely. Look to the literature to see what others have used for their materials and products. Similar products from different companies do not all work in the same way. In fact, some do not work at all.
5. Get help. If you are performing certain research techniques for the first time, be sure to consult an experienced friend or colleague. Rookie mistakes are commonplace in academic research, and they can lead to wasted time and resources.
6. Know what you want to study, **why** you want to study it, and how your results will contribute to the current pool of knowledge on the subject.
7. Clearly state a hypothesis before beginning your work. Focus on researching this hypothesis. All too often, people start a project and they are taken adrift by new ideas along the way. While ideas are good to note, be sure to maintain your focus!
8. Along with keeping focus, know your experimental endpoints. There are times when data collection goes smoothly, but you want to dig deeper into the subject. If you want to keep digging deeper, do so with a follow-up study.
9. Keep a target journal in mind. If you are aiming for a high-impact journal, you may need to do extensive research and data collection. If your goal is to publish in a lower-tier journal, your research plan may be very different. If you need help with finding a target journal, Journal Prep offers a personalized **journal recommendation** service.
10. If your study needs to be approved by a review board or ethics committee, be sure to obtain appropriate documentation. Journals will often ask you to provide this information.
11. If your study involves patients or patient samples, you are generally required to obtain explicit permission from the participant or donor. Journals may ask for copies of corresponding documentation confirming that your study participants provided their informed consent.



General Details

12. Read and follow ALL of the manuscript preparation guidelines listed for an individual journal. Most journals have very specific formatting and style guidelines for the text body, abstract, images, tables, and references. Note: Journal Prep can help you with manuscript preparation and formatting.
13. **HYPOTHESIS:** Be sure to have a hypothesis and state it clearly. This is, after all, why you are conducting this research in the first place.
14. Write as though your work is meaningful and important – because it is! If you don't, people will not perceive it as such.
15. Critique your own work. Look for areas that reviewers might spot as weaknesses and either correct these areas, or comment on them in your manuscript; leave reviewers with fewer options to offer negative criticisms.
16. See if your team members or colleagues in similar research areas can review your work. They may be able to help you identify various elements (methodological or otherwise) that need to be addressed when preparing your manuscript.
17. Always present the study as a finished piece of work, although you may suggest directions for future research. Otherwise, you can be sure that reviewers will suggest you perform additional studies.
18. Be thorough and patient with the several rounds of editing required for your work. Also consider all of the tiny details specified by your target journal when submitting a manuscript (such as the spelling of industry-specific terms or general manuscript formatting). All this work will pay off in the end. Don't have the time to address the little details during manuscript preparation? Journal Prep's **English editing** service can help you.
19. Focus. Make sure that you have substantial and convincing evidence to prove your hypotheses and theories. Brainstorm your ideas and make sure that your article showcases how you went about proving (or disproving) your hypothesis.
20. Your writing should be precise and accurate (and if you have trouble with this, Journal Prep offers **Medical Writing** or **English editing** services to assist you). Avoid long sentences; the reader may find them difficult to follow.
21. Teamwork is essential in successful publishing. Welcome advice from those around you, as they may offer valuable input and insight. No matter how competent you are in your study area, it will help to have your work reviewed from someone else's perspective. Others may help identify flaws in your work that were previously undetected.
22. As a final step, after completing your research paper, **edit, edit, edit**. You need to identify and correct any and all errors in your work.
23. Your target audience is more likely to read shorter research papers than longer ones.



24. Select a simple and descriptive title; this will encourage others to cite your work.
25. Focus on providing important information that your readers will need when following your experiment, modeling description, or data analysis methods. Try not to overload your reader with details that might seem important, but which are ultimately irrelevant to your target audience.
26. Your paper should advance a particular line of research. It does not need to answer every remaining question about the topic.
27. If you present your work at an academic conference prior to submitting it for publication, get constructive criticism from as many potential reviewers as possible.
28. Make sure your paper reads well. Many choppy, simple sentences are unpleasant to read, even if they are grammatically correct.
29. Use clear, concise, and grammatically correct English.
30. Non-native English speakers should try to arrange to have their manuscript reviewed by a native English speaker. If you know someone with excellent proofreading skills and a general knowledge about your research discipline (e.g., the biological sciences), ask them to help you. If you don't know someone who fits these criteria, use a professional editing service, like the one offered at **Journal Prep**. You will save yourself from a great deal of frustration and lost time.
31. Show your work to friends and colleagues, including those who are in different research fields. Get as much feedback as possible before you submit your manuscript for publication.
32. The body of the paper should support your central research idea, and it should also demonstrate that you thoughtfully and comprehensively studied the research topic. Your paper should be clearly written and easy to follow. Original research should generally include four main sections: 1) Introduction; 2) Materials and Methods; 3) Results; and 4) Discussion.
33. When referencing papers, check the validity of the claims that are made. For instance, if you are reading X paper, which says that Y paper showed a specific result, check Y paper for yourself to ensure that this is true before claiming the same thing in your own manuscript, as many authors misunderstand their colleagues' findings.
34. If you are in the process of running a follow-up experiment, write your manuscript in such a way that it nearly begs for that follow-up study to be performed. That way, when reviewers request that you perform or acknowledge the need for such a follow-up study, you can say it is already in progress or near completion.



Step 1: Writing Your Introduction

35. Start your article with a comprehensive, yet concise, literature review of your exact subject and highlight the ways in which your paper will make a new contribution to the field.
36. Throughout your introduction, use the past tense. One exception to this is when you are speaking about generally accepted facts and figures (e.g., heart disease is the leading cause of death...).
37. Try to avoid using new acronyms, unless absolutely necessary; they will confuse your readers.
38. The introduction of a research paper is extremely important. You will typically present a brief literature review, discuss a specific problem that needs to be investigated, and tie in how your research work aims to address that problem. This is the point when you will write about the purpose of your research work. The introduction should be simple, powerful, realistic, and logical, so it will entice the reader to read the full paper.
39. Avoid using unnecessarily long paragraphs. Break up your paragraphs into smaller units.
40. Do not be afraid to use headings in your introduction (and discussion).

Step 2: Writing Your Materials & Methods

41. There is no need to over explain common scientific procedures. For example, you do not need to explain how methods like PCR or Western blotting work; simply indicate that you used these techniques. If you are using a brand new technique, you will need to provide details of the steps involved.
42. Use third-person passive voice in scientific manuscripts, such as, “RNA was extracted from the cells” (compare this with, “We extracted RNA from the cells”).
43. Be sure to mention the names of the companies from which you purchased any significant reagents for your experiments.
44. When in doubt about how to report your materials and methods, look for papers with similar methodologies to yours that have been published in recognized journals. These can serve as great examples. Just make sure that you don’t copy or replicate what other authors have reported before; you will get flagged for plagiarism.
45. You do not need to mention sources of typical labware (beakers, stripettes, pipette tips, cell culture flasks, etc.).



Step 3: Writing Your Results

46. Make sure your graphs and tables can speak for themselves. A lot of people skim over academic papers.
47. The Results section should contain only a description of your results; it should not discuss what the results mean, as this is saved for the Discussion section.
48. Do not repeat everything conveyed in your tables and graphs. You can, however, point out key findings and offer some text to complement those findings.
49. Be sure to number your figures and tables according to journal guidelines, while also making sure to cite them in the text. Please follow your target journal's specifications when formatting your tables and figures (and their respective in-text citations).
50. Your graphs should be clear to read. Do not overload graphs with data. Make sure that your axis descriptions are not too small.

Step 4: Writing Your Discussion

51. Your Discussion section should answer **why** you obtained the observed results; do not simply restate the results. In this section, also address **why** your results are important (i.e., how do they advance the current understanding of this topic?).
52. If there are multiple possible explanations for your results, be sure to address each one. You can favor one explanation, but be sure to mention alternative explanations as well, if any exist. If you don't discuss these, your reviewers will certainly make it clear that you need to.
53. If your research findings are suggestive or supportive rather than decisive, make sure you report that. Never overstate the importance of your research findings. Instead, clearly point to their true significance.
54. Understand the primary message of your paper. You may discover its message after performing a literature search, as is occasionally the case for some manuscript types (e.g., case reports).
55. Highlight how your research contributes to the existing knowledge in your field, and make sure to mention any next steps, additional tests, or experiments that need to be performed. Feel free to explain why your results falsify current theories, if that is the case. Also note any current limitations in your present study, and discuss how subsequent studies can help address those.
56. Make sure that your Discussion is concise and informative. If you include a great deal of unnecessary information, your paper will likely get rejected, or it may be looked upon less favorably.



Step 5: Conclusion and References

57. The importance of the Conclusion section should not be overlooked. This section should briefly restate the other parts of your research paper by referring to the methodology, data analysis, and results from your study. This section concludes the overall discussion; it should be brief, concise, and worth remembering.
58. It is important to mention all references (sources of information) in your text to strengthen your article. You must cite your references in the text, and list your references either in a dedicated References section in your manuscript, or in your manuscript's footnotes (depending on your target journal's requirements); otherwise, your paper may be flagged for plagiarism.
59. Failure to include every obscure reference to a topic will not prevent publication.
60. Use bibliographic software such as EndNote, RefWorks, or Mendeley to store your references. This will help you readily format your References section when you make changes throughout your paper following reviews of your work by friends, colleagues, reviewers, or editors/proofreaders.

Step 6: Writing Your Abstract

61. In your abstract, limit the amount of background information you provide. Any critical background information should only be presented in 1–3 sentences.
62. Never refer to figures or tables in your abstract.
63. When writing an abstract, always use the past tense, since you are giving a summary of what was done in your research. One exception is if you mention future directions in your concluding statement.
64. Write a clear and concise abstract. The reader has to understand the study rationale, the methods used, and the study findings. Many researchers will only ever read the abstract of your paper, so it must contain the most pertinent information.
65. Be sure to check journal guidelines for abstract length. Many journals will not accept abstracts longer than 200–250 words.
66. Feel free to hook readers with a “big picture” statement to open the abstract. Remember that many action editors will know very little about your topic area and, in some cases, your abstract will be the only element of your manuscript that determines whether or not you get through the initial screening process.



Step 7: Journal Selection

67. Since each research article often features multiple/overlapping disciplines and methodologies, many researchers make the mistake of submitting their manuscript to the wrong target journal. This can result in immediate rejection. Even if the article is encouraging and presents methodologically sound and rigorous work, it will not be accepted by the wrong journal.
68. Look for journals that have previously published articles on your topic, as this suggests that your work may appeal to the journal editors. If you need help with this, Journal Prep offers a **journal recommendation** service.
69. Look at a journal's impact factor; the higher the impact factor, the higher the quality (impact factor is based on how many of a journal's articles are cited in other manuscripts in a given year). A journal's impact factor will give you an idea of the journal's quality, and it also indicates how difficult or easy it might be for you to submit and publish an article with that journal.
70. Look at the journal acceptance/rejection rates. These are sometimes (not always) inversely correlated with impact factor values.
71. Look at the average time to publication, as well as the average time to acceptance/rejection notification. If you want to publish your work quickly, make sure you choose a journal that offers rapid processing. Some journals will highlight their rapid processing times to encourage authors to submit their work to those particular journals.
72. Some journals charge various fees, including manuscript processing or color figure reproduction fees, for accepted manuscripts. Make sure you are familiar with the publication costs associated with a given journal before you submit your work.



Step 8: Manuscript Submission

73. Look at papers that were recently published in your target journal. Ask yourself if your paper is of equal or higher caliber. If not, submit your work to a different journal.
74. Identify the primary journals related to your field of study and pay attention to their specific areas of focus. Select a journal that focuses on your manuscript's particular research area or topic. Many journals will clearly describe their focus and scope on their website.
75. Consider your field of study. Every field of study has several different journals that publish information related to that field. Knowing the names of these journals narrows your potential options.
76. Select two or three appropriate target journals. While you will only publish your work in one of these, you may find that having multiple choices prevents you from duplicating the selection process following a possible rejection.
77. Locate the contact information for each target journal and get as much information as you can about its submission process. Make sure to obtain the most recent information, as policies or necessary contact details can change over time and without warning.
78. Go over your manuscript to ensure that it is formatted according to the journal's submission guidelines. Pay special attention to the references/bibliography, text formatting, and citation style.
79. Create your cover letter. This should include the name of the editor to whom you are sending your work (if this information is available). While you want to come across as personable, you should avoid being too personal, as this is a business communication. In fact, you want to ensure that your letter is professional. Include your contact information in the letter, in case the editor wishes to speak with you about your work.
80. Get your cover letter professionally edited. Cover letters often leave a first impression with the journal editor. Your letter needs to be strong and impressive, as it can set the tone for the subsequent review process.
81. Submit your work. This can be done physically or electronically, depending on the submission guidelines of your target journal. For electronic submissions, some journals will accept attachments, while others will not. Be sure to send your work in the correct format. If you are sending your work physically (in hard copy), include a self-addressed, stamped envelope – either large enough to return your work back to you, or just large enough for the editor to send you a letter.
82. When submitting your manuscript, aim high, but not too high. If your work is not groundbreaking, or if it doesn't offer something new to the field, you may wish to look at target journals with acceptable (or lower) impact factors. If you still decide you want to submit your manuscript to a top journal, you may face possible rejection and/or lost time.



83. Do NOT submit your article to more than one journal at a time. This is unethical and you will eventually get caught.
84. When uploading your text, table, and image files electronically, many submission systems will dynamically assemble your files into a single PDF document for easier handling. Be sure to review your PDF file after it is generated to ensure that it is in the correct format, and that all information has been included.
85. Respect the journal's word length guidelines. Many journals have specific word length requirements for different document types, such as original research articles, case reports, short reports, review papers, and so on. If the journal states that the maximum word count is 6,000 words, then do not submit a paper with 6,100 words.
86. If a journal allows you to suggest reviewers for your manuscript, do so. This can work to your advantage. Suggest reviewers who know your field well and who might be interested in the results presented in your paper.
87. If a journal allows you to specify which reviewers you do not want reviewing your paper, take advantage of this. This process can help ensure that your work is not sent to someone in your field who may not see eye to eye with you, your supervisor, your lab, or your research topic/approach in general.
88. If you definitely do not want your paper reviewed by specific individuals in your field, do not submit your paper to any journals where these individuals have recently published their own works. Editors often look to authors who have recently published works on a similar topic to serve as reviewers.
89. If you think specific reviewers may look favorably upon your work, take note of any journals in which they have been published recently. Select the most appropriate journal to your topic and submit your work there. Be sure to note these individuals in your manuscript whenever credit is due; there is nothing that angers peer reviewers more than reviewing an article in which their own work is not cited, but should be.
90. Read your target journal's mission statement. If your paper is highly theoretical and the journal clearly states that it does not publish purely theoretical work, find a new journal.
91. Email the editor to see if your manuscript topic is appropriate. Most will happily direct you elsewhere if your work is inappropriate for their journal.
92. Look for journals that have issued calls for papers. They are more likely to look upon any related work in a favorable light.



Step 9: Post-Submission

93. When you receive the initial feedback from your peer reviewers, consider it carefully. In your resubmission cover letter, respond to each point made by each reviewer. Highlight the points you followed and the ones you did not (and indicate why).
94. When you are asked to perform additional studies, do them quickly and resubmit your manuscript as soon as possible.
95. If reviewers suggest changes/additional studies before the article can be published, respond to the editor indicating that you will address these suggestions, so that they know your intentions.
96. Do not respond to your reviewers' comments in an argumentative tone; be polite and straightforward. Feel free to disagree with their feedback, but be sure to have hard evidence to support your claims.
97. When responding to reviewer comments, copy and paste the reviewers' comments verbatim (word for word) in one color (e.g., black); then, add your responses in another color (e.g., blue). You should also copy and paste any relevant sections from your revised manuscript into your cover letter. A reviewer should be able to determine how well you addressed their comments without having to read your revised manuscript.
98. Well-organized, well-written response letters can avoid re-review of your manuscript. The editor will see the changes that you have made, and that person may accept the revised manuscript without reviewing the full text again.
99. Remember to select as many "keywords" as possible. Many people do keyword searches when performing literature reviews. This will increase the likelihood with which your manuscript is read and cited.
100. If accepted for publication, be sure to carefully check page proofs, and do so quickly. A 24–48-hour turnaround request is typical.
101. Once your manuscript has been published, be sure to let others know! You can do this through various social media platforms, your online CV, or other channels. Not only will this help generate additional interest about your research topic, but it may also provide you – or others – with insight on how to advance your specific research area.

To all of Journal Prep's English editors, reviewers, and founding members who contributed to this list, thank you! We owe much gratitude to Dr. Shawn Maloney and Kyle Maloney for compiling the original list, as well as to Christina Gallucci for updating it.

We want you, the reader, to send us your tips. We will gladly revise our list (and credit you for it) if you provide us with some additional insights. Contact us at info@journalprep.com with additional advice for the research community.



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