Six things to do before writing your manuscript

elsevier.com/connect/six-things-to-do-before-writing-your-manuscript

In this new series — “How to Prepare a Manuscript for International Journals” — a seasoned editor gives advice to boost your chances of acceptance

By Angel Borja, PhD Posted on 12 May 2014

How to Prepare a Manuscript for International Journals — Part 1

In this monthly series, Dr. Angel Borja draws on his extensive background as an author, reviewer and editor to give advice on preparing the manuscript (author's view), the evaluation process (reviewer's view) and what there is to hate or love in a paper (editor's view).

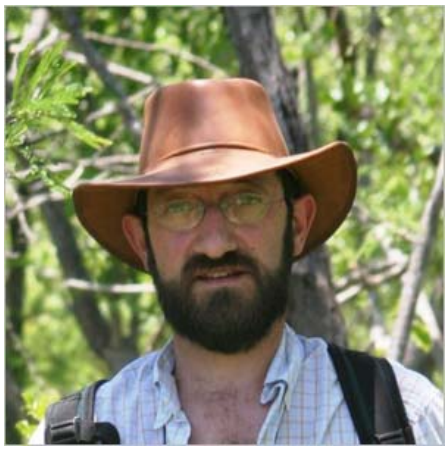
This article is the first in the series.

In 2005, Elsevier asked me to give a course on scientific writing. The course was very successful, and since then, I have organized similar courses at least once a year. Why? I think that sometimes researchers are not trained by their supervisors in writing scientific papers during the PhD period, which is the best time to learn the principles and discipline of publishing.

The Author

Dr. Angel Borja (@AngelBorjaYerro) is Head of Projects at AZTI-Tecnalia, a research center in the Basque Country in Spain specializing in marine research and food technologies. Formerly he was also Head of the Department of Oceanography and Head of the Marine Management Area. His main topic of investigation is marine ecology, and has published more than 270

Angel Borja, PhD



contributions, from which 150 are in over 40 peer-reviewed journals, through his long career of 32 years of research. During this time he has investigated in multiple topics and ecosystem components, having an ample and multidisciplinary view of marine research.

During these courses, I try to give my triple vision of the publishing process: as author, reviewer and editor. I have worked at universities and at a research center since 1979. Since 1981, when I published my first paper, I have written more than 270 scientific contributions, 150 of which are in more than 40 different peer-reviewed journals.

For any author, it is also important to review papers from colleagues (I review an average of 45 to 50 papers per year, and I have reviewed for more than 65 different scientific journals), because this gives a broader view of the hot topics for publication. I'm also the editor of several journals.For these reasons, I think I can provide my particular view of how to increase your chances of having a paper accepted.

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

Writing a paper starts well in advance of the actual writing. In fact, you must to think about why you want to publish your work at the beginning of your research, when you question your hypothesis. You need to check then 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 much 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 (if you are a PhD student) 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.

Whatever type of article you write, plan to submit only one manuscript, not a series of manuscripts. (Normally editors hate this practice, since they have limited space in the journals and series of manuscripts consume too many pages for a single topic or an author/group of authors)

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. Probably most of them are concentrated in one or two journals. Read very recent publications in each candidate journal (even in press), and find out the hot topics and the types of articles accepted.

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. You can find a journal's Impact Factor on its webpage

or via Science Gateway.

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. Following this simple tip will save your time – and the editor's time. You must know that all editors hate wasting time on poorly prepared manuscripts. They may well think that the author shows no respect.

5. Pay attention to the structure of the paper.

More and more journals have new types of structure for their articles, so it's crucial to consult the Guide for Authors. However, in general, most of them follow the same structure:

- A section that enables indexing and searching the topics, making the paper informative, attractive and effective. It consists of the Title, the Authors (and affiliations), the Abstract and the Keywords.
- A section that includes the main text, which is usually divided into: Introduction, Methods, Results, Discussion and Conclusions.
- A section that includes the Acknowledgements, References, and Supplementary Materials or annexes.

The general structure of a full 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?
- **A**nd
- **D**iscussion: What does it all mean?

I will discuss structure in more detail in a subsequent article.

6. 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. It's

also possible to commit ethics violations without intending to. Educational resources include the Publishing Ethics Resource Kit (PERK) from the Committee on Publication Ethics (COPE) and Elsevier's Ethics in Publication & Research website.

Closing advice

As you prepare your manuscript, there are some basic principles you should always keep in mind:

- Cherish your own work – if you do not take care, why should the journal?
- There is no secret recipe for success – just some simple rules, dedication and hard work.
- Editors and reviewers are all busy scientists, just like you. Make things easy to save them time.

Hence, if you are ready to learn more about preparing a manuscript, look for the next articles in this series and have good luck!

Related Stories

- How I published in a scientific journal at age 12
  By Suganth Kannan | Posted on 27 Mar 2014

  A student writes about the inspiration behind his model for earthquake prediction – and what he learned on his ("tedious but worth it") journey to publication