Writing a review article in 7 steps

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Writing a review article in 7 steps

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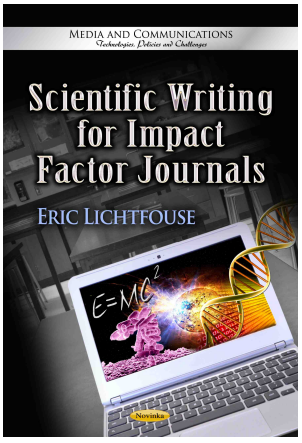

Abstract
This short note provides step-by-step guidelines to write a review article or a book chapter. I explain in particular a convenient method to build the abstract by writing short conclusions at the end of article sections. I also give general writing advices.

Definition
In the scientific literature, review articles, or book chapters, are a category of scientific papers, which provide a synthesis of research on a topic. Review articles are secondary sources analyzing several original articles, which are primary sources reporting original results.

STEP 1
Read at least five high-quality chapters on a similar topic to make yours better.

STEP 2
Gather and read about 50-100 original articles on a topic within your scientific field.

STEP 3
Write down a list of about 5-8 subtopics that will constitute a draft of your article sections. The structure below shows in particular that the Introduction section is abstracted in the first part of the abstract, and that sections are abstracted in the second part of the abstract.

Title

Abstract
Background/issues
List of advances

1. Introduction

2. Section
Analysis of 5-8 original articles. Figure, table
Conclusion on the main trend: 1-2 sentences

3. Section

...

6. Section

7. Conclusion

References

STEP 4
Write in each section 1-3 paragraphs including one illustration showing the section point: a figure, a table, a scheme or a photo… Use colours. Sections should analyse, discuss and compare the results from about 5-8 original articles. End the sections with 1-2 sentences concluding on the major point, trend or result that you have deduced from your literature analysis. See also abstract comments below.

STEP 5
Write the introduction section starting by 1-2 paragraphs of societal and general issues, almost readable by the public, and then write 1-2 paragraphs of scientific issues related to your topic. Insert in the introduction a figure containing 1-2 nice colour photos related to the topic and readable by the public, this will highly increase the visibility of your review article.

STEP 6
Write the abstract, the abstract should have two parts:

1) ISSUES/PROBLEMS: abstract of the Introduction section
This part, about 5-7 sentences, should give first all general, societal, environmental issues related to your topic, understandable by a very wide readership: this is the big picture. Then the text should explain all specific, local, scientific, conceptual issues related to your topic.

2) MAJOR ADVANCES: abstract of article sections
This part should start by e.g. "We reviewed… The major points are 1)…, 2)…". Indeed you should give here the major points and advances that you demonstrate in the sections by literature analysis. Those points should be precise trends (increase, decrease…) supported by data (%, numbers), whenever possible. A convenient way to build this second part of the abstract is to write at the end of each article section a conclusion of about 1-2 sentences to summarize the major point of the section and its significance. Then all those 1-2 sentence conclusions can be gathered in the second part of the abstract. In other words this second part of the abstract should clearly show the added value of your analysis. This second part of the abstract is indeed the solution to the problems explained in the first part. Overall it is the contrast between the first and second part that makes the value of the article for the reader, and in turn the impact in terms of citations.

STEP 7
Write the title using both specific and general keywords. Please note that your title must be readable by scientists out of your field, because science is interdisciplinary.

GENERAL ADVICES

- Keep abbreviation number to a very strict minimum. Explain all abbreviations. Note that most readers are not in your field, and most readers do not read from start to end. This phenomenon called bits reading is amplified by digital reading. In other words an out of the field reader starting reading at e.g. page 5 will not understand an uncommon abbreviation, and will thus stop reading your article.

- Abbreviations in figures and tables must be explained at the end of the caption.

- Avoid long, multiverb sentence. Write simple, monoverb sentences in the order subject-verb-object.

- Avoid everywhere long expressions in (): this causes heavy reading. Replace by “, ; e.g. such as” … Or split sentences. One message only per sentence.

- No sentence alone. Write in paragraphs everywhere. A paragraph is not a sum of sentences; a paragraph is a story or a demonstration.

- Insert the digital object identifier (DOI), when available, at the end of references, this will increase visibility. Check that references in the text are in the list, and vice versa, this will save weeks of delay at the publishing stage.

- Figures and tables should be understandable and citable without reading the article text. Therefore figure captions should include 2-3 sentences to describe the trend, result or fact to be observed, and its scientific significance. This will highly increase the impact. Indeed many readers start by reading figures.

- Please note that figures, especially photos, have 100 times more communicative power than text. Readers like illustrations, especially those that show things that they see every day: plants, animals, tools and objects.

- Detailed advices on scientific writing are given in my book[1].

Thanks for reading, Eric Lichtfouse

1. Scientific Writing for Impact Factor Journals. E. Lichtfouse. Nova Science Publishers. 2013. 87p
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