

The Scientific Bureau of the University of Catania

How to write for scientific publication



You are all involved, in some way, in research, and thus, scientific publication. Research is the aim; publication is the goal. But how to write a great scientific paper...in English!

“English isn’t my first language”

English is the language of science; you cannot get away from this fact. Every one working in the fields of science knows that in some way they are evaluated and/or congratulated on their scientific publications, with an eye on the most prestigious journal names and, as a consequence, impact factor. Publish and be damned! (1)

Of all the scientific papers published in 2014, 98% were in English. (2) I do not think the situation has changed much since then. It is not exactly clear how many articles are published every year, but it has been estimated as about two million in around 30,000 scientific journals. (3)

So, from this we can see that to be published, and published well, you need to write in English. Yes, if you discover time travel and you write like a 5-year-old, the journal will obviously help you publish, but this is not the case for the vast majority, you can only dream of it. I have seen this only once, for an article that was published in *The Lancet*; they fell over backwards to get the article, a dedicated sub-editor to help, and hey presto, it was in the next issue. This does not happen every day of the week; you need to work hard!

Well, then, back to you and your written English. You need to publish, your English is not that bad, you send the article off to a journal that you think could accept it, then, back it comes, two, three reviewers’ comments; one likes it, two do not, it is rejected! What! I must do a big re-write and submit to another journal? Or you read “English needs to be improved”. Improved? How? What is wrong? Who has not been rejected in one way or another? It always feels bad.

Your paper has been rejected. Do not worry. Go through the check-list and go over your paper again. And, read, read, read articles from the same journal. See how they are written.

Rejection

Rejection rates of some well-known journals can vary between 80 and 85%. Some journals have reported it to be as high as 90–95%. Restricted publishing space and too many articles submitted are given as reasons for high rejection rates. It is reported that about 62% of papers have been rejected at least once by other journals before getting published. (4)

It is definitely harder to get a good article published today than, say, in 1980. Globalization, the rise of the Internet, the new on-line journals and Open Access (5) together with the need to demonstrate that your work is important (important enough to get funding), have all led to an exponential increase in papers submitted to journals. These prestigious journals make a lot of money, (6) and, in an effort to make more, have moved on-line and sacked those copy editors who, in the past, read your article and made the necessary corrections so that it could be published. Open Access makes you pay to publish on-line and over the last 10-15 years journals have asked contributors to provide a certificate that their article is of *Grade A English* and *print ready*. This certificate can be obtained from one of the many on-line English editing/proofreading services (some run by the same journal!) for a pretty hefty fee (more money for the journals).

That was a long introduction: now for what you need to do to not get that “English language needs to be checked”.

Elsevier's open access trends 2019

49,000
open access articles

 **40%**
over growth on the previous year



>90%
of our journals offer the option to publish open access

Elsevier

Publishing company



Elsevier is a Netherlands-based information and analytics company specializing in scientific, technical, and medical content. It is a part of the RELX Group, known until 2015 as Reed Elsevier.

CEO: Kumsal Bayazit (Feb 15, 2019–)

Headquarters: Amsterdam, Netherlands

Parent organization: RELX

Revenue: 2.64 billion GBP (2019)

Imprints: Academic Press, Pergamon Press

Subsidiaries: Cell Press, Elsevier Science & Technology,

If you can improve some areas of your English: punctuation, spelling, correct scientific words, use of paragraphs, removing words or phrases that the journal does not use, the general feel of your paper will be

What to do

The first and most important recommendation I can give is: Read, read, read articles (similar to yours) in the same journal where you want to publish. Look at the layout, how many paragraphs, what is the order of the main ideas, how many times do they repeat the same idea/phrase, what words do they use, generally, get a feel for the journal's style. Read the notes for authors. Make sure you do EVERYTHING they ask. If you want to use a word or phrase that is not something you have read before, check, and check again. If you cannot find it in any of the journal's articles; do not use it! Spell check your article, USA or UK spelling, all the words must be correct. Check all scientific words, check them in the journal. Check capitalization, italics and hyphenation, again in the journal. Check spacing and punctuation. Many of these suggestions might seem obvious; they are not. I receive papers to correct every week and all contain one or more (sometimes all) of these mistakes. You might say that checking for double spaces is not really necessary: I have read reviewers' comments saying "check spacing", scientific words misspelled", check capitalization" and others. You want to make the reviewer happy, the happier the reviewer is the more likely your paper will be accepted. They are not paid. At the third spelling mistake they say "check spelling and English".

Well, what have we learnt from this: read articles from the journal where you want to publish and learn from them.

In scientific writing the majority of words and phrases and the structure of an article is always very similar: the data and nouns change.

The nearer your style is to that of the journal,

Check list

- All scientific words and phrases have been checked for **capitalization, syntax, punctuation, hyphenation, and italics** and reflect the standard use in the journal where the paper will be published;
- The paper has been checked for **punctuation** and correct use of **spaces**;
- Tenses have been used correctly, especially: **Present, Past, Present Perfect, and Past Perfect**;
- Use of the articles **A** and **An** are used correctly based on pronunciation;
- The following have been used correctly: **both...and...; either...or...; neither...nor...**
- **Abbreviations** are correct and have been spelled out only the first time;
- Check that all **adjectives** have a **noun**;
- Check the correct use of **respectively**;
- Check if the spelling that the journal uses is **UK English** or **USA English**;
- Check the use of **paragraphs**, not too many;
- Check you have not used **certain phrases** too many times (this could be a description used in i) abstract; ii) introduction; iii) materials and methods; iv) results; v) conclusions. Too many; paraphrase or eliminate;
- Use initial adverbs sparingly: **Interestingly, notably, recently**;
- Be careful with “**finally**”, it must be the last in a series;
- Check that **font** and **size** are the same throughout the paper;
- Do not overuse: **in fact, indeed**;
- Check use of: **min, h, sec**;
- Spacing for: **10 h, 10 %, 10° C**;
- Decimal point: **10.01 not 10,01**;

References

- 1) <https://www.bmj.com/content/337/bmj.a1644>
BMJ 2008;337:a1644
- 2) <https://www.bibliovault.org/BV.landing.epl?ISBN=9780226000299>
Gordin MD. Scientific Babel. Scientific Babel. 2015.
- 3) <https://www.universityworldnews.com/post.php?story=20180905095203579>
Philip G Altbach and Hans de Wit 07 September 2018
- 4) <https://doi.org/10.1007/s13224-018-1153-1>
Khadilkar, S.S. Rejection Blues: Why Do Research Papers Get Rejected? J Obstet Gynecol India 68, 239–241 (2018).
- 5) <https://www.elsevier.com/authors/journal-authors/open-access?aaref=https%3A%2F%2Fwww.google.com%2F>
- 6) <https://libraries.mit.edu/scholarly/publishing/elsevier-fact-sheet/#:~:text=Elsevier%20is%20one%20of%20the,US%20%249.8%20billion%20in%202019.>