Tips and tricks for writing a scientific article

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ABSTRACT
In this manuscript some writing tips and tricks are offered which can be of help in the process of creating a convincing and readable manuscript. The process of writing a manuscript itself should become easier, in particular for the inexperienced writer, with help of the websites mentioned in this article.

KEYWORDS:
scientific article, writing

INTRODUCTION
Writing a scientific article can be a very difficult process. Moreover, for some it is a kind of superlative to suffering. Fortunately, there are some guidelines which can be helpful in the writing process, like a fixed structure, as indicated in Figure 1. Van Dijk went into this in more detail in a previous article1.

There are also several websites which can be of great help in writing a manuscript. In this paper we will highlight several handy tools for this. We will also show how to check whether your bibliography is complete and whether the document is written in understandable English. Next, we will go into plagiarism and the question where to submit the manuscript. Finally, the criteria for authorship will be highlighted.

METHODS
For this contribution we used material which is lectured to PhD students in Groningen2. Furthermore, two of the authors used this for a lecture for the Public Health Research group3, and it was used for a presentation in Olomouc4.
RESULTS
General web sites – Several websites give general information about writing a manuscript; some are about grammar, some discuss the sections of a manuscript and some give handy synonyms or sentences to use. A general website is http://owl.english.purdue.edu/owl/section/1/, which provides support for several aspects of the academic writing process.

Another helpful website is http://writing.wisc.edu/Handbook/index.html, which provides several recommendations and comments for writing a clear and readable article, such as: ‘Write clear and concise sentences’ and ‘Use the active voice’. The website gives a lot of ‘Transitional words and phrases’ and offers some help regarding the ‘Stages of the writing process’. For writing papers with a special focus on psychology or related behavioural sciences, http://www.psych.uw.edu/psych.php?p=339 is a website one could consult.

A real diamond is the website http://www.phrase-bank.manchester.ac.uk/, where frequently used sentence structures can be found that are related to specific parts of the manuscript, i.e. the Introduction, Methods, Results and Discussion. Also very helpful is the website on Etblast, http://etest.vbi.vt.edu/etblast3. This website can, for example, be used to decide whether all of the important literature is included in a paper. A search for articles on Etblast is quite similar to a search on PubMed, but with Etblast one can search with one’s own written text instead of keywords. A part of one’s own text or the whole draft text can be entered; then the button <Search for Similar Text> is pushed and the website provides you with similar references. On this basis one can decide whether the bibliography is complete or not.

Understandable English – One necessity for writing a draft is the question of whether the written text is understandable for the reader, in other words, whether understandable English is used. The website http://conc.lectutor.ca/vp/eng gives insight into one’s scientific vocabulary. It shows a ratio of the most commonly used words in the English language (‘K1’ is used for the most frequent words 1–1000; ‘K2’ for 1001–2000) versus academic English (AWL) and jargon (off-list). A more or less ‘neutral distribution’ ends up in a ratio of 70 K1: 10 K2: 10 AWL: 10 off-list. To identify which words are ‘academic’, one can paste one’s text into the website http://www.nottingham.ac.uk/~alzsh3/acvocab/awlhighlighter.htm. The ‘academic words’ will be highlighted. The website http://conc.lectutor.ca/vp/eng also gives the origin of the words used: Anglo-Saxon words or words related to Greco-Latin or to the French language.

Visualisation words – To visualise the words that are stressed in the draft – and among them should be the keywords of your article – the website http://www.wordle.net can be used. To find alternatives for words in the text and to understand the meaning of words in a broader context, the website http://visuwords.com can be recommended.

Plagiarism – The website created by <Etblast> provides a similarity score with other papers, http://etest.vbi.vt.edu/etblast3. This website has already been mentioned in this paper. The website, http://dejavu.vbi.vt.edu/dejavu/ can be called the ‘déjà vu’ database, because it provides a database for similarity scores.

Where to submit – To explore or to decide where to submit one’s manuscript, there are a few rules to take into account. The manuscript should be submitted to a journal with an Impact Factor (IF). An IF is based on the number of times a journal was cited in the past two years. A higher IF means that the chance of others reading one’s paper is higher, and therefore, it is more likely that the paper will be cited. One might also be inspired by published papers used in one’s own bibliography. In the end, the content of the manuscript is more important than the IF. Use a <journal finder> from sites like http://etest.vbi.vt.edu/etblast3 to find a number of journals, and then have a look at their contents to see whether they published articles similar to the one you have created. Journals have requirements; stick to these and be sure to use correct English!

Rules for authorship – Some general rules for authorship (in biomedical journals) are given on the website http://www.icmje.org/ethical_1author.html; the number of journals adhering to these criteria is increasing.

DISCUSSION
In this contribution we have suggested several websites which can be of great help in creating a manuscript. We hope that reading this article will make writing a scientific article easier. Probably the most difficult issue in the process of writing a manuscript is staying focused on the main idea or hypothesis. Once more, we wish to underline the fact that the websites we have referred to are available for use by everyone. Finally, we wish you good luck and no suffering in writing your research papers.

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