

Description

Are scientific papers getting more difficult to comprehend? According to a report in BioRxiv, the readability of scientific texts has been declining significantly. Science articles and abstracts alike have become fraught with confusing phrases and terms familiar only to experts or specialists in that field.

Now, it almost seems that part of the scientific process is learning to read and write in a foreign, scientific language. Research should be written and presented in a way that it can be reproduced and understood easily.

Complicated Scientific Writing

Published in BioRxiv, a report from researchers in Sweden included an analysis of how easily scientific papers could be understood. These researchers analyzed 707,452 abstracts published between 1881 and 2015 from 122 influential biomedical journals. Interestingly, they found that, in general, the readability (or the ease of reading something) has been steadily decreasing.

To assess readability, the researchers measured many factors in writing, including the “number of syllables in a word, the number of words in a sentence and the number of words in a paper not included in a predefined list of common words.” The researchers described the use of scientific jargon as one of the reasons. When scientists describe their work, genes and proteins are described in ways that make no sense to an individual who is not familiar with science. Now, nearly a quarter of abstracts can’t even be understood by someone with college-level English skills.

What Has Led to this Situation?

Jargon-heavy writing isn’t the only problem in science. Even the use of simple words that one can look up has changed. The syntax of a sentence, or how a sentence is structured, has evolved too. To sound complex and sophisticated, scientists have mimicked the confusing writing of previous scientists. Now, with many co-authors on a single scientific paper, everyone has an opinion. The effort to accommodate the nuanced intentions or desires of the various authors has led to more confusing sentences.

As the field of science becomes more specialized, the use of jargon and the number of co-authors

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have been increasing at a similar rate. The habits of a group of researchers in a specific field become normalized over time, thereby leading to this trend. And it should be stopped – everyone has the right to know about the research information being released in the public domain.

Tips for Writing Clearly

Sure, many scientists are able to figure out what is being written in a paper. But, who has the time? As a researcher grows in his/her career, time becomes more valuable. We all could benefit from needing less time to understand a research paper. Clearly written English can be found in the works of older scientists. For example, Charles Darwin has clear writing – why not write like him?

Scientists can also learn some tricks for writing their scientific abstracts and papers. First, use fewer words in a manuscript – write in a clear and concise way. Removing filler words and using active voice are both sure ways to increase the readability of your text. It also shortens your manuscript length. Similarly, abstracts should be short and independent. Journal reviewers and conference organizers will enjoy an abstract that can be read and understood easily. Finally, avoid anthropomorphizing your writing! When ascribing human feelings to non-human objects, like bacteria, readers can get confused.

In short, there are several ways to increase the readability of scientific texts. As shown by a recent study deposited in BioRxiv, scientific articles and abstracts are becoming too long and hard to comprehend. Clear and easily understandable papers will help both scientists and non-scientists to appreciate the published work.

Category

1. Manuscripts & Grants
2. Reporting Research

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