

What is scientific jargon?

Jargon is the specialized vocabulary of any profession, trade, science, or hobby. As scientists discover new phenomena and research techniques, they coin terms by which to refer to these findings. These terms, which are technical terms specific to a discipline, will, by default, be jargon. Thus, jargon essentially creates language to meet the needs of scientific development. In addition, by introducing new jargon in their texts scientists signify that they are making progress in the field.

Jargon differs from “fatty” language, or unnecessarily complicated words and phrases. It does not simply refer to any incomprehensible writing, but to the specific technical terms within a discipline. Thus, jargon serves the purpose of allowing the author to communicate both concisely and effectively within a disciplinary audience.

Using jargon in scientific texts

Scientists attempt to establish themselves as professionals of their disciplines by using specialist terminology. However, jargon sometimes decreases readability and distracts readers from the main focus of the paper. When using jargon, it is very important to keep the audience in mind, and consciously consider when and how often to utilize specialized vocabulary. To improve clarity, writers should always consider the following:

- **Audience:** The level of acceptable jargon depends heavily on the reader. For instance, although the audience of a scientific journal article is likely educated in the subject and can thus comprehend a high level of jargon, the government official reading an environmental policy memo might not have the background or time to understand complex vocabulary. Use your discretion to think carefully about your specific audience.
- **Poorly formed jargon:** In some cases, even when jargon is used appropriately for a given audience, its meaning might still be unclear. Several possible cases include:
 - **Misleading jargon**
Example: “heavy metals” – The term is often used to describe toxic metal elements such as mercury and lead. However, a reader has no way to quantify how much an atom must weigh to be considered “heavy,” and there are nontoxic elements with greater atomic weights than either mercury or lead. Unless the reader already knows exactly which metals the jargon describes, the term offers little clarification.
 - **Jargon named after a person**
Example: “Klinefelter’s syndrome” – This jargon term is named for its discoverer, but fails to reveal anything about the condition, namely that individuals with Klinefelter’s have an extra sex chromosome.
 - **Excessively long jargon**

- **Jargon that is difficult to pronounce**

Guide for Revision

1. When you have a near-final draft of a paper, read through and annotate every discipline-specific term.
2. Ask yourself whether the sentence needs the jargon. If the audience would understand the term and it increases the concision or makes the meaning more specific, the jargon is probably functioning well. However, if there is unnecessary, frequently repeated jargon, or jargon that obscures the meaning, rephrase the sentence(s) to eliminate the term. The simpler, usually, the better!
3. If the term is required, consider both audience and the possibility of poorly formed jargon. Provide definitions for appropriate jargon the first time the terms appear in the paper, and include clarifications for any poorly formed jargon. It may also help to designate an acronym for a frequently used piece of jargon.

Examples

Original: *The phospholipid bilayer allows for bidirectional transport of cellular metabolites via membrane pores and transmembrane proteins.*

Possible Revision: *The cell membrane allows for the entry of molecules needed by the cell as well as the exit of molecules produced by the cell. Depending on the molecule, it will either pass through small holes in the membrane called pores or through proteins embedded in the membrane.*

This example demonstrates the trade-offs inherent in using jargon. The original sentence uses complex biological terms that refer to specific biological processes and structures. For a more general audience, the jargon can be eliminated entirely and replaced with simpler language, while preserving most of the meaning. Note that the revised version is longer than the original, so in the original concision and communication to a specific audience are emphasized, whereas in the revised text clarity takes precedence over concision to reach a broader audience.

Original: *Changes in the sequence of DNA during replication can affect other cellular processes such as transcription.*

Possible Revision: *Changes in the DNA sequence during replication can affect other cellular processes such as transcription, which is when the sequence is used to make an RNA copy.*

This is a situation where an author can easily define a scientific term for the readers. The term “transcription” is the simplest term to describe the process by which RNA is made from a DNA copy. Although readers might be able to make the connection between “transcription” and “transcribe,” they might not know the details on their own. The additional definition fills in any lingering information gaps.

Original: *Genetic abnormalities often result in sterility, such as in Turner syndrome.*

Possible Revision: *Genetic abnormalities often result in sterility, such as in Turner syndrome, a condition in which a female is missing an X chromosome.*

The revision clarifies jargon that has been poorly formed, effectively defining the jargon for readers. As in the previous example, Turner syndrome is the simplest way to refer to the genetic condition. In this case, however, the term is named after a person and thus offers no insight as to what Turner syndrome is. The definition is required in order for the reader to understand the condition.

Additional Resources

<http://owl.english.purdue.edu/owl/resource/608/03/>, “Group Jargon,” Purdue OWL handout

<http://www.writing.utoronto.ca/advice/specific-types-of-writing/science>, “Writing in the Sciences,” University of Toronto Handout

This handout was created by Jordana Rosenberg as part of her final research project for EDU 255 “Literacy, Writing, and Tutoring” in Fall 2012.