Identifying Technical Language

Technical language can be very useful in conveying complex ideas to an audience with the appropriate background knowledge. But when communicating to a general audience, it is important to take a step back and consider your word choice carefully.

If you are writing technical information, it can be tempting to use the words that seem most precise and familiar to you, but for readers to understand what you are saying, you have to see the message from their point of view. Language that seems natural to you may be opaque and frustrating for readers. This is particularly true when the goal is to communicate something to readers in a field different from your own, or to the general public.

Write to communicate effectively, not to tell all you know

Write to communicate effectively. Effective communication should be catered to the intended audience, so ask these guestions to decipher if you should use a word or phrase:

(Adapted from https://sharingscience.agu.org/jargon-and-how-to-avoid-it/)

Who exactly is my audience?

• Field test your message with a member of this audience, if at all possible. If your readers are the general public, then think of the people in your neighborhood, your relatives, or your friends from high school. If they would struggle to understand what you're talking about, then rephrase your message.

Do others know what the acronyms mean?

Most fields have acronyms that people within that field understand. But to
outsiders, these acronyms are probably just a jumble of letters. Recall the
frustration you may have felt when trying to decipher unfamiliar acronyms. If you
use an acronym, make sure that the members of your audienc ewill understand it.

Does this word have multiple meanings?

 Lots of technical terms have standard definitions outside their technical meanings. Using words like this can be very confusing because it's hard for outsiders to separate the technical from the general definition of a word. For example, a computer mouse is very different from the small rodent.

How many syllables are in that word?

• Geomorphology? Six syllables. Hydrostatic equilibrium? Nine syllables. Long, complicated words in science and other technical fields can be necessary, but for whom? Not everyone wants or needs the same level of technical precision.

Another, more systematic approach to discerning technical language is to place words into specific categories. Linguists Chung and Nation (2004) developed a classification system for this. Using their work, we've developed our own way to decide how technical a word or phrase may be.

Level

• These words and phrases are related to the field but have meanings understood regardless of audience or context. These are words you might see in a newspaper or use in casual conversation. (heart attack; human-like creature)

Level 2

• These words and phrases are closely related to the field and usually used in the context of that field. These words might have a more specific meaning in the field, but most people would still understand them. (cardiac arrest; hominid)

Level 3

• These terms are highly specific and are not likely to be outside the field. Level 3 words and phrases sometimes sound like a foreign language to outsiders. They also include words that have technical definitions vastly different from the common definition. These can also include acronyms common in the field that are made up of otherwise rather general words. (myocardial infarction; Homo neanderthalensis)

Adapted from Chung, T. M., & Nation, P. (2004). Identifying Technical Vocabulary. System: An International Journal of Educational Technology and Applied Linguistics, 32(2), 251-63.

This classification system can be useful, but keep in mind this is just a starting place. Two people may not classify the same technical terms the same way. Even within fields and disciplines, terms may have meanings that differ among people or organizations. Because technical terms can vary within and outside a given field, the most important thing is to **know your audience.**

The following table gives terms from several different fields. Each row describes the same concept in increasing levels of technicality. Notice that the column for Level 3 contains a single word or phrase, whereas the columns for Level 1 and 2 contain multiple words to describe the same idea expressed in Level 3. To communicate clearly and effectively with an outside audience, it is often necessary to use more words than you would with fellow insiders.

Field	Level 1	Level 2	Level 3
Computer Science	A list of people, places, or things that aren't allowed access to a specific network, website, email address, etc.	Access control mechanism that denies access to a list of blocked emails, IP addresses, users, URLs, etc.	Blacklist
	The "brain" of the computer that does all the calculations, so the computer can complete its tasks	Central processing unit	CPU
	The "short term memory" of the computer that stores information only while it is being used	Random access memory	RAM
Biology	When the body maintains its internal conditions on its own in a balanced manner	State of stable equilibrium of self- regulated processes	Homeostasis
	Cell that helps the skin and bones keep their structure	Cell that produces collagen and other fibers in connective tissue	Fibroblast
	Molecule controlling how much of a protein is made inside the cell Who you're writing for and why	Protein controlling rate of transcription from DNA to RNA Audience, purpose, and message	Transcription factor Rhetorical
ng			situation
Writing	Order of words in a sentence	Sentence structure	Syntax
	Being able to trust the source	Credibility	Ethos
Psychology	Dealing with painful feelings or experiences by ignoring them	A defense mechanism in which a person deems a memory or emotion as unacceptable and attempts to exclude it from his consciousness	Repression
	A person's sense of being able to see things how they really are and uses that information to meet the individual's needs	The part of a person's consciousness that tries to satisfy desires in accordance with reality and social norms	Ego
	Loss of interest in normal activities	Inability to feel pleasure	Anhedonia