

Reducing Cognitive Load

Your job as a writer is to make yourself understood.

Try to reduce cognitive load on the reader.

- Put a definition close to where it is used
- Keep notation simple and self-evident
- Take advantage of layout to emphasize important things (equations, lists, definitions, etc.)
- Remind readers of things as appropriate
- Be consistent in all respects (syntax, meaning, notation)
- Respect convention
- Use parallelism: If one thought is similar to another, the wording should reflect that

Non-native English Speakers

Will you remain in this country (or another English-speaking country) after graduation?

After graduation, will you be publishing in English? Giving presentations in English?

Unfortunately, the only solution to becoming proficient in a language is to use it constantly.

How to Improve Your Writing

Ear: “The ability to hear whether a given word order, sentence, or term is correct.”

“The simplest way to improve your expository writing substantially is to learn to avoid a limited set of extremely common errors.”

General issues:

- When editing (not composing!!) you should consciously strive to whittle away at the number of words needed to express yourself
- Don't tell the reader how to think
- Avoid banality.
- Paragraphs should be logical units
- Break up long stretches of text
- Sentence openers should be strong (keep reader's interest)
- Use punctuation to clarify (help reader parse)

Some English Hotspots

Than, That

Articles (the, a):

- Do not use “the” (with plural or uncountable nouns) to talk about things in general.
- Do not use singular countable nouns without articles.

Hyphenated phrases are used to denote binding. Note that “-ly” replaces hyphenation.

Otherwise, use hyphenation sparingly.

- object-oriented programming
- artificially induced intelligence
- The well-known theorem is a theorem that is well known.

Avoid using “very”

“In order to” can almost always drop “in order”

Avoid passive voice (use “x did y” in preference to “y was done by x”).

Hotspots (continued)

Be careful of ambiguous pronouns.

Proper names are capitalized. “In Section 3 is a reference to the fourth section.”

Use present tense when referring to other places within the current document. “This is proved in Section 3” not “This will be proved in Section 3” or “This was proved in Section 3.”

Be sure not to mis-spell “analyze” !!