On Writing

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BEST PRACTICES FOR SCIENTIFIC WRITING
Just Do It

- Start writing
- There is always something you can write
Accuracy and Clarity

• Use a clear and concise writing style
• Proofread. Proofread. Proofread.
• Have zero tolerance for typographical errors, misspellings, grammatical errors, or sloppy formatting
• Step away for time period, then critique your own work
• Have others read your draft and provide input
Accuracy and Clarity

• Be consistent, accurate, and specific
• Guide the reader from Point A to Point B
  – Connect-the-dots
• Use a logical sequence of presentation
• Use short sentences and paragraphs
• Start paragraphs with strong, topical sentences
Tips for Clarity

• Never send the reviewer to the dictionary
• Avoid jargon – it will be irritating to a reviewer from another field
• Don’t use ‘former’ and ‘latter’ – it only slows down the reader
• Avoid acronyms and abbreviations
• Avoid intensifiers like very, highly, and extremely (clutters up the sentence and can undermine intent)
Still tempted to use abbreviations?

- Don’t use abbreviations – they hurt readability and make the reader work
  - E.g., SCD, HCV, ED, CV, BCa

- When should you use an abbreviation?
  - When it is **standard** and uniformly understood (DNA, RNA, HIV), i.e., appears as a main entry in the dictionary
  - When the phrase is used 4-5 times in the text and helps readability, e.g.:
    - Sodium-glucose cotransporter 2 inhibitor (SGLT2i)
    - Estimated glomerular filtration rate (eGFR)

- Always define at first mention and monitor the total number of different abbreviations and minimize (or eliminate) to improve readability
STILL tempted to use abbreviations?

- Presentation by Dr. David Cohen, IL.
- The meeting will be held in 2022 in CA.

**Note:** Postal codes are for mailing only!

**Acronym vs abbreviation?**

- *Scuba* - self contained underwater breathing apparatus
- *Laser* - light amplification by stimulated emission of radiation
- *ARIC* - Atherosclerosis Risk in Communities
- *CDC* – Centers for Disease Control and Prevention
Don’t Cushion Your Writing

• Delete “Styrofoam” including modifiers and intensifiers:
  – Absolutely, actually, almost, apparently, as to whether, certainly, commonly, comparatively, definitely, due to the fact that, even, in order to, in part, in spite of the fact that, in the event that, it is important to note, just, nearly, partially, predominately, presumably, rather, really, relatively, seemingly, surprisingly, somewhat, sort of, to a certain degree, to some extent, with regard to

• Modifiers can sound apologetic. Be confident in your statements.

• Stand behind your writing.
Tempted to use intensifiers?

Some advice:

“…substitute damn every time you’re inclined to write very; your editor will delete it and the writing will be just as it should be.”

https://quoteinvestigator.com/2012/08/29/substitute-damn; The Craft of Scientific Writing (M. Alley); The Sense of Style (S. Pinker)
Other Tips

• Use active voice
• Write in short sentences
• “Omit needless words” (read *Strunk & White* for good advice)
• No jargon, avoid technical terms
• Maintain terminology and any *necessary* abbreviations throughout the text
• Uniform tense
• Briefly explain technical terms (if unavoidable)
Writing is hard because thinking is hard

• “The curse of knowledge”
  – The writer’s inability to put herself in the reader’s shoes or to imagine that the reader might not know all the writer knows (jargon, shorthand, technical terminology, received wisdom)
  – Major cause of bad writing

• Clarity above all

• Unclear writing often reflects unclear thinking

https://www.nytimes.com/2014/10/19/books/review/steven-pinker-the-sense-of-style-review.html; The Sense of Style (S. Pinker)
Do Not Plagiarize

“…taking for one’s own use the words, ideas, concepts or data or another without proper attribution…”

• Journals use plagiarism-detection software

• NIH uses plagiarism-detection software

• Professors use plagiarism-detection software
Referencing Guidelines

• Always acknowledge the contributions of others
• Verbatim text must always be enclosed in quotation marks and accompanied by a citation
• When in doubt if something is common knowledge, provide a reference.
• Paraphrased work should be a more concise and shorter version of the original. The structure should also differ from the original.

Referencing Guidelines

• When paraphrasing, always reference or identify the original source.

• When paraphrasing, reference the primary source of the information.

• When paraphrasing, every effort must be made to represent the facts and/or meaning of the other author’s ideas accurately. But using your own sentence structure and words.

Referencing Guidelines

• To properly paraphrase, you must be thoughtful.

• You will need to employ strong writing skills and demonstrate a clear and thorough understanding of the material (ideas and terminology) being referenced.

What about the methods? Can I recycle text?

- No.
- Highly technical sections can be hard to write succinctly and clearly. Your methods section should reflect a deep understanding of the methods.
- Recycled text often reflects ‘scholarly laziness’.
- Methods should always be tailored for the specific publication.
- Prior papers with methods descriptions should be referenced.
- Text recycling can be a copyright violation.
Self-Plagiarism: Can I use my own words in different papers?

• No.
• Avoid using previously published text.
• Writing should *always* be tailored for the specific publication.
• Prior papers should be referenced.
• Self-plagiarism can be a copyright violation.
• The writing is in the editing
• Start writing
• There is always something you can write
• Then you should edit, and edit, and edit, and edit…..
“Smart people respect simple language not because simple words are easy, but because expressing interesting ideas in small words takes a lot of work.”
Resources to Help You with Writing

• Common errors in English usage:
  https://brians.wsu.edu/common-errors-in-english-usage/

  Short book (91 pages)

  Classic advice such as:
  “use active voice”
  “omit needless words”

  First Edition is available free:
  http://www.bartleby.com/141/strunk5.html
THANK YOU