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EDITORIAL

Writing Advice for Filipino Graduate Students and Young Researchers

These suggestions were continuously compiled since the 1980s at the National Institute of Geological Sciences and Marine Science Institute of the University of the Philippines Diliman, as I edited many Master of Science theses and helped graduate students prepare them to submit to professional journals. Some of the suggestions for illustrations are specific to geology and oceanography and may be less useful for other branches of science.

This commentary is submitted to the Philippine Journal of Science (PJS) in honor and memory of my mother Sophie Schmidt Rodolfo, who was a PJS copyeditor before World War II.

1. First of all, don't bother following most of these suggestions until you have already written what you want to say in some form, however crude. The first rule is to say *something*, then work on saying it well.
2. Never, ever forget that you are serving your reader! True professionals pride themselves on being easily understood. Clarity, the efficiency with which they convey their thoughts, is their trademark. Frequently check over your writing by stepping back and asking yourself: "Can someone else understand this?" Sometimes, reading part of the manuscript aloud reveals clumsy or unnecessary wording.
3. Practice word parsimony. The goal of all science writing is to say more with less. Think about the power of Einstein's five simple symbols $E = mc^2$. Also, editors are always conscious of manuscript length, which equates to publication cost.
4. Don't use complicated words when simple ones will do.
5. Write in the active voice, for it is simply more interesting to read: "Aguinaldo killed Bonifacio" is *active*; "Bonifacio was killed by Aguinaldo" is *passive* and unnecessarily uses two more words.
6. Examine your manuscript for word endings like "-ant," "-ment," "-ation," "-ship," "-ance," "-ence," and "-al." Such words are *nouns* that were made from *verbs*. Example: the root of the noun "*imagination*" is the verb "*imagine*". Make the noun back into a verb, and you will find another verb that you can discard: "I used my imagination" becomes "I imagined."
7. The easiest way to start a sentence is "The." But starting consecutive sentences with "The" or a similar word like "That," "There," "This," and "Those" is boring and can make readers lose their way in the paragraph or read the same sentence more than once—annoying—or, worse, skip a sentence entirely. Similarly, avoid consecutive sentences that start exactly the same way: "The dragon. The dragon is a mythological beast …"
8. If you find that you have written a sentence in which the same word or phrase appears more than once, you can abbreviate it gracefully by reducing it to a single usage.
9. Avoid one-sentence paragraphs except for dramatic effect, which is avoided in scientific writing anyway.
10. No periods after km, mm, cc, *etc.* "Year" and "years" are abbreviated as y (no period).
11. Spell out "percent" in a sentence; use "%" only in figures, tables, and within parentheses.
12. Use a standard scheme of heads and sub-heads, <u>without</u> A, B, C, or 1, 2, 3. Except, of course, if your thesis guide or the journal's '"Suggestions for Authors" demands it. In your own writing, don't use A, B, C, or a, b, c, or 1, 2, 3 or (1), (2), (3) to itemize two or three items—a bad academic tradition. We all can count to three anyway, right?
13. Avoid needless acronyms like AOR, EPR, *etc.*, if they add nothing to the clarity of your writing. *Masyadoing mahilig tayong mga Pinoy*, *lalong-lalo yung mga* geochemists, *sa mga* acronym *na walang dinadagdag at nagpapalabo lamang.*

14. Words like “while,” “since,” “usually,” “occasionally,” and “until” are time terms, and for clearer writing, their use should be *temporal* only. If you are not dealing with time, use “whereas,” “inasmuch as” or “because,” “commonly” or “generally,” “in some places,” and “to” instead.

15. Abbreviate Fig. in parentheses but spell out Figure in the body of the text.

16. Avoid parentheses as much as possible. It is bad enough for scientists that we are forced to clutter up our sentences with parenthesized references and dates; try to limit the parentheses to these. Especially when the sentence already contains a reference in parentheses should you not use parenthesized phrases!

17. If you find yourself using a phrase in parentheses, ask yourself: “Is this phrase an indispensable element of this sentence?” If you decide that it is, then take it out of the parentheses and make it a full element of the sentence; if you decide it is not needed, take it out altogether. A separate sentence for the parenthetical comment is an alternative tactic.

18. Avoid “and/or”—and any such slash-joined pairs. Bad form!

19. Spell out numbers (not quantities) ten and less. Use numerals for larger numbers.

20. Do not start sentences with “But,” “However,” “Because,” or any such preposition. That usage is technically acceptable but not elegant.

21. NW, N, NE, and such directional terms must be spelled out in the body of a sentence and abbreviated only within parentheses.

22. Compound adjectives are joined by hyphens: “shallow-marine clays”; “tidal-channel aquifers.”

23. Use collective nouns properly! We do not conduct “researches” or cite the “literatures.” Do you comb your hairs in the morning or count sheeps to get sleepy? Other collective nouns, to be used WITHOUT terminal -s: equipment, furniture, instrumentation, work—except, rarely, for uses such as “by their works shall ye know them.”

24. We Filipinos have problems with prepositions. Say “implications **for**,” “insight **into**,” “reflected **in**” or “**by**,” “result **in**,” “effect **on**,” “concerned **with**,” “relations **with**,” “located **in**,” “detrimental **to**,” “associated **with**,” and “impact **on**.”

25. “That” or “which”? Use “which” to set off a qualifying clause—a nonessential clause—involving things: “The basalt sample, which is in the doorway, belongs to Doc Nonoy.” The sentence is complete without the added bit of information. *Usually the phrase is written between commas, and the common practice is to use “which” if it follows a comma.*

26. For everything else, use “that.’ It works for everything. “The pickup that Caloy bought so cheaply looks like Mickey Mouse.” “She is not the same person (that) you knew in high school.” “The walrus that ate the oysters was on a diet.” For a person, alternatives to “that,” may be “who” or “whom.” “The jerk who lives downstairs has a Videoke.”

27. If the sentence would use “that” twice, you might consider changing one of them to “which,” especially to avoid “that that.”

28. The editors of Merriam-Webster's Dictionary of English Usage sensibly recommend that in introducing a restrictive clause, “the grounds for your choice should be stylistic.”

29. “Clastic,” “metamorphic,” tectonic,” and “ultramafic,” to give some examples, are adjectives, NOT nouns, and are improperly used without the necessary nouns. Say “metamorphic rocks,” clastic rocks,” ultramafic rocks,” NOT “clastics,” “metamorphics,” or “ultramafics.” “Intrusive rocks” or “intrusions,” not “intrusives.” Sediments are not indurated; sedimentary rocks are and should not be called “sediments.”

30. “Sample” is a word that should be restricted to methodology. You are not describing samples; you are describing materials. Do NOT use the initial sample numbers if they do not add to clarity. Re-number them in your final report.

31. This is perhaps most important: beginning authors should not be surprised or discouraged if their submissions are rejected outright or if they are told to “revise and resubmit.” Such editorial decisions are integral parts of

the scientific process. Receiving them as personal insults is a mistake. Put your emotions aside and accept such decisions as collegial efforts to improve your work. Examine each criticism as a suggestion to improve your work (reviewers can make mistakes or misunderstand your thoughts, so defend yourself). Revise the manuscript and resubmit it. AND BE PREPARED TO BE REFUSED AGAIN, REVISE AGAIN, AND RESUBMIT to another journal, if necessary.

A special note to young women: My sociologist wife Kathy and colleagues studied how male and female researchers respond differently to editorial decisions of their submitted work (jstor.org/stable/3033764). They asked authors who submitted papers to professional journals about the initial editorial decision by the journal.

Women authors, more than men, attributed all their outcomes, even acceptances, to uncontrollable causes. Sometimes, the way a woman interprets a rejection can undermine her self-confidence and motivation, making her less likely to continue her efforts to publish the rejected paper.

Illustrations:

1. Always draft at least double-sized, or even three times the final size. When you reduce it to make the final copy, it becomes very sharp and very nice. But watch your resolution when you re-size a computer-generated image.
2. In making a .jpeg version of an illustration, stipulate all images at least 300 dpi.
3. Always make sure the final font size of the smallest type is no less than 4 points, or about 1.5 mm. *Maawa kayo naman sa bumabasa, hoy! Lalong-lalo 'yung mga matatandang kagaya kong halos bulag na.*
4. The choice of figure size should be determined by its legibility and also by how the figure would appear if published. In other words, a graduate student submitting part of a thesis to an appropriate journal should follow that journal's format to decide whether the figure should be column width, page width, or full page in landscape orientation, allowing for a figure caption below it on the printed page. Remember: the printed page is expensive, and the less space taken up by an illustration, the better—of course, without sacrificing legibility. Submit your figures at final sizes and stipulate so in your submittal letter. Busy editors will be appreciative.
5. Land maps and nautical charts. No such thing as a "nautical map"!
6. Labels or any wording in a figure should not be positioned on or over data such as streams, data points, or faults and other structures.
7. On maps, labels of geographic places or names of physical features such as mountains are in regular font. Names of *rivers*, *lakes, seas*, *oceans*, and other water features are always *italicized*.
8. DO NOT use the same illustration for an oral presentation and a written paper! Neither is served well. The detail in a normal published illustration figure is usually much too dense, and its font sizes always are too small for a good presentation slide. For slides, use 24-point font, or certainly no less than 18 points. Make two or even three slides, if necessary, to show the content of a publication figure. For PowerPoint presentations, a good tactic is to sequentially introduce data sets into a single .ppt slide.

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