

The “Paramedic Method”

Modified from Lanham, R (2007). Revising Prose, 5th ed

JM Gay DVM PhD 2/19 ver 1.8

Revising is changing your text to say what you meant to say in the order you meant to say it after drafting it; **editing** is making your revised text concise and clear and proofreading is the final check for grammatical, spelling and punctuation mistakes. **Complete at least a rough first draft before revising. Revise before editing. Edit before proofing.** Doing otherwise takes longer and leaves newer material less polished. Excellent advice abounds; use it.

Five characteristics of bad academic prose (adapted from Technical Editing for Scientists, Dr. Bruce Jaffee, UC Davis <http://jaffeerevises.com/index.htm>): Academic writing is an inflated, static, passive style that is less effective than a vigorous, lean and direct (*L&D*) style. Effectiveness is the ratio of what the reader gains versus how hard they have to work to read the material.

1. Nouns rather than verbs emphasized
Academic: A fumigation occurred. *L&D*: The farmer fumigated his field.
2. Static rather than action verbs used
Academic: The field was fumigated by the farmer. *L&D*: The farmer fumigated his field.
3. Inflated, embellished words
Academic: small faunal species, agricultural laborers, residential facilities
L&D: rats, farm workers, house
4. Long, complex sentences
Academic: In so far as manifestations of infestation by a small faunal species were evident in the residential facilities provided for the agricultural laborers, an unwillingness to occupy, utilize, or in any manner inhabit the facilities was therefore demonstrated by the aforementioned laborers.
L&D: Because rats infested the house, the farm workers refused to enter.
5. Hedged, waffling statements
Academic: A certain number of patients with diabetes tend to develop indications of retinopathy.
L&D: Some diabetic patients develop retinopathy.

The Paramedic Method “. . . is emergency therapy, a first aid kit, a quick, self-teaching method for translating “Official Style” English into “plain” English.” Lanham provides clear steps for correcting common writing problems. These are tools, not hard-and-fast rules, for writing clear, concise, easier-to-read sentences. The goal is attention economy, obtained by removing the lard so that your reader invests their scarce time efficiently. Easily read, clear, and concise sentences are “user friendly” and thus more persuasive. Hedge only when convention requires it; otherwise be positive and write with conviction. Forcing your reader to interpret flabby, noncommittal sentences distracts them from your point. Focus on single sentences. **Read your work aloud!** Write the clearest, easiest to read, flowing proposal possible.

Paramedic Editing Steps:

Example modified from Purdue OWL Writing in Engineering INDOT Workshop [Paramedic Method Handout](#)

Original sentence: “An evaluation of the effect of Class C fly ash and ground granulated blast furnace slag (GGBFS) on the properties of ternary mixtures for use in concrete pavements was undertaken and is presented in this paper.” (36 words)

1. **Underline or highlight the prepositional phrases.** (e.g. phrases starting with of, to, in, for, on, with, as, by, at, from, per, about, back, except, following, into, beside, among, between, over, off, onto, under, through, around). Prepositions are glue, attaching nouns and pronouns to verbs or another pronoun, but because connecting is all they do, every preposition means more dead weight in the sentence.

An evaluation of the effect of Class C fly ash and ground granulated blast furnace slag (GGBFS) on the properties of ternary mixtures for use in concrete pavements was undertaken and is presented in this paper.

2. **Circle the "is" and "to be" verb forms.** (e.g. is, are, has been, have been, was, were, will be, will have been, is being, are being, am)

Variations of the passive verb "to be" reverse sentence action with the subject being acted on rather than the subject acting upon the object through an active verb. These encourage long strings of prepositional phrases, further pacifying and deactivating your writing. Microsoft Word identifies passive voice if you turn on this grammar checking feature, which you do by opening the Grammar and Spelling checker, clicking "Options", changing "Writing Style" to "Grammar and Style" and under "Settings" checking "Passive sentences."

An evaluation of the effect of Class C fly ash and ground granulated blast furnace slag (GGBFS) on the properties of ternary mixtures for use in concrete pavements was undertaken and is presented in this paper.

3. **Put a box around nominalizations to identify the primary action.**

Nominalizations are adjectives or verbs that have been changed into nouns, usually by adding "-ion".

An evaluation of the effect of Class C fly ash and ground granulated blast furnace slag (GGBFS) on the properties of ternary mixtures for use in concrete pavements was undertaken and is presented in this paper.

4. **Otherwise, identify the sentence's central action - "Who's doing what whom?"**

"He was physically aided in his exodus from the property via the actions of security personnel," really means, "Security kicked him out."

5. **Put this action into a simple (not compound) active verb and place the doer as the subject.**

Subject – verb – object; Actor > Actor's action > Object of action. "Who is kicking whom?"

6. **Keep the base clause near the sentence beginning**

7. **Start fast with no meaningless introductory phrases**

Get to the point quickly by laying down your actor and their action as early as you can. "Blah blah is that" is the worst offender because deleting anything before "blah blah is that" doesn't change sentence meaning. Find by searching for "is that."

8. **Eliminate unnecessary words and phrases**

Edited sentence: "This paper reports the effect of Class C fly ash and ground granulated blast furnace slag (GGBFS) on the properties of ternary mixtures in concrete pavements." (26 words – 28% LF)

The Lanham Lard Factor (LF) = (number of words removed) / (number of words in original sentence)

9. **Mark off sentence lengths with a "\" between sentences**

If the sentences look about the same length with only a few short ones, the passage will tend to drone and sound monotonous.

10. **Write each sentence out and mark off its basic rhythmic units with a "/"**

11. **Finally, read the passage aloud with emphasis and feeling**

Or better, have someone read it to you. Reading aloud identifies rough spots more effectively than silent reading. To recognize what your sentences actually state rather than what you intended them to state when reading aloud yourself after much editing, start with a paragraph's last sentence and work backwards.

Guidelines for Editing Scientific and Technical Prose

(modified from materials at [The Center for Global Communication + Design](#) at Rensselaer Polytechnic Institute, [Phil Druker](#)'s University of Idaho class materials and [IY Hashimoto](#)'s Whitman College [COWS](#))

Use the active voice: (aim for < 1/3 passive voice sentences)

Faulty: In each picture, the responses are shown.

Better: Each picture shows the responses. LF = $(7 - 5) / 7 = 28\%$

Avoid “be” verbs (am, is, are, was, were, been, being, be; < 1/3 sentences contain “be” verbs).

Passive voice requires three things: (1) Be (is / are / was / were / been / be) + (2) verb + (3) past form (typically ‘-ed’)

- Was shockeded
- Will be found
- Has been determineded
- Is requesteded

Use personal pronouns (I, we, our) when they clarify your text:

Faulty: It has been found experimentally that genetically altered strawberries are frost-resistant.

Better: In this experiment, we found that genetically altered strawberries are frost-resistant. LF = 8%

Write sentences that have “things doing something to things”:

Faulty: It was decided that company policy be changed to allow employee selection of personal leave.

Better: The personnel committee changed company policy, allowing employees to select their own leave.

Don't nominalize (changing verbs and adjectives into noun forms). Use verbs (action words) instead of nouns (things) or adjectives (descriptive words):

Nouns that end in:

- ance (tolerance, avoidance, importance, cognizance);
- ence (competence, coherence);
- ment (agreement, acknowledgement, assignment, accomplishment);
- tion (rejection, reflection, calculation, formulation, fornication, hospitalization);
- sion (admission, decision, secession, remission, emission, transmission);
- ity (conformity, deformity, capability, respectability);
- ness (happiness, homeliness, resourcefulness, blessedness);
- ing (the awarding, the recognizing, the discovering, his thinking);

Convert to a verb:

Creation > create	Running > run
Investigation > investigate	Editing > edit
Evaluation > evaluate	Movement > move
Reaction > react	Progressing > progress
Explanation > explain	Excludes > exclude
Addition > add	

Prepositional phrases often contain nominalized verbs that can be replaced:

. . . in acceptance of for fulfillment . . .
. . . in avoidance of of interest . . .
. . . in the knowledge of of responsibility . . .
. . . in response to for implementation . . .
. . . after consideration under consideration . . .
. . . with this characterization	. . . with the exploration . . .
. . . under this obligation . . .	

Faulty: We conducted an investigation of the accident.

Better: We investigated the accident. LF = 43%

Faulty: Indirect predator control is the exclusion of predators through means such as.... (12 words)

Better: Indirect predator control excludes predators through means such as.... (9 words)

Faulty: The increasing electrical output requires the addition of extra modules. (10 words)

Better: The increasing electrical output requires adding extra modules. (8 words)

Don't string nouns together, which creates what Peter Medawar described as "one huge noun-like monster in constant danger of falling apart."

Faulty: Early childhood thought disorders misdiagnosis often occurs as a result of unfamiliarity with recent research literature describing such conditions.

Better: Physicians unfamiliar with the literature on recent research often misdiagnose disordered thought in young children.

Avoid "there is/are/was/were" phrases. You usually can delete "there is . . . + that or which . . ."

Faulty: There are several advantages to genetic screening. (7 words)

Better: Genetic screening presents several advantages. (5 words)

Faulty: There has been a lot of research done to determine its causes. (12 words)

Better: Much research has been done to determine its causes. (9 words)

Faulty: There were many factors that affected this situation. (8 words)

Better: Many factors affected this situation. (5 words)

Avoid "it is/was" at sentence beginnings:

Faulty: It is recommended that we complete more research. (8 words)

Better: We should complete more research. (5 words)

Faulty: It is our goal to serve the university community. (9 words)

Better: Our goal is to serve the university community. (8 words)

Maintain parallelism:

Faulty: The new regulations could cause problems for both the winners and for those who lose.

Better: The new regulations could cause problems for both winners and losers.

Emphasize important words by placing them either at the beginning or, for greatest impact, at the end:

Faulty: Rather than being a judge who pronounces the verdict, the teacher becomes an editor who guides students' writing with this method.

Better: With this method, the teacher becomes an editor who guides students' writing, rather than a judge who pronounces the verdict.

Place subordinate ideas in subordinate constructions:

Faulty: The value is 50 watts and is best determined by actual test.

Better: The value, which is best determined by actual test, is 50 watts.

Replace vague verbs with informative, descriptive ones:

Faulty: He went to the island.

Better: He sailed to the island.

Replace ponderous expressions with lean ones:

Faulty: Align the tubes in such a manner that they all heat at the same time.

Better: Align the tubes so they all heat at the same time.

Replace unfamiliar words with familiar ones:

Faulty: Everyone should be cognizant of the danger of explosion.

Better: Everyone should be aware of the danger of explosion.

Avoid overused expressions:

Faulty: Utilization of crystal clear goals and objectives will optimize our capacity to prioritize our concerns so that we will impact upon the major thrust of our company's future plans and prospects.

Better: If we clarify our goals and objectives, we will be better able to concentrate on what is most important for our company's future.

Cut unnecessary words: (initial goal of cutting ~1 in 10 words)

Faulty: After a time interval of one to two minutes, the tone usually stops.

Better: After one to two minutes, the tone usually stops.

Faulty: Another activity that I would use my computer for is the wordprocessing software package.

Better: I would also use my computer for wordprocessing. LF = 57%

Be precise:

Faulty: The cost must not be prohibitive.

Better: The cost should not exceed \$100 per thousand gallons.

Avoid confusing pronouns:

Faulty: As the temperature falls, a compressive stress is exerted by the bezel on the glass because of its greater temperature coefficient.

Better: As the temperature falls, the bezel, because of its greater temperature coefficient, exerts a compressive stress on the glass.

Keep sentence elements in their proper order:

Faulty: The sample to be analyzed first must be put into solution.

Better: The sample to be analyzed must first be put into solution.

Avoid dangling modifiers:

Faulty: Walking up the hill, my umbrella was blown away by the wind.

Better: While I was walking up the hill, the wind blew away my umbrella.

Reduce strings of prepositional phrases:

Faulty: The June 15 deadline **for** submission of proposals **in** response **to** an invitation **from** the National Science Foundation also applies **to** unsolicited proposals.

Better: The deadline for solicited and unsolicited proposals to the National Science Foundation is June 15.

Remove useless modifiers, filler words and phrases that do not add content: (e.g., really, actually, usually, deeply, very, quite, too, little, rather, thing, problem, aspect, situation, process, concerned with, there is, it is)

Faulty: As far as my professor is concerned, the problem of wordiness is the thing she'd really like to see us involved with actually eliminating.

Better: My professor wants us to focus on eliminating wordiness.

Interrogate each word

Is each word a strong one that provides something important and unique to the sentence?

Make each sentence a consequence of the preceding sentence

Connect the first part of a sentence to the preceding sentence

Place the familiar before the new information in a sentence

Provide your reader familiar information for context before providing the unfamiliar information

Present one point or main idea per sentence

Multiple ideas or points may confuse readers, distracting them from your point

Combine sentences when both are short and closely related

Watch for sentences that:

- End with words that begin the next sentence
- Start with "This . . ."
- Start with the same words as the previous sentence

WSU Graduate Writing Center Services - <https://writingprogram.wsu.edu/graduate-writing-center/>

Graduate Writing Resources - <https://writingprogram.wsu.edu/gradwriting-resources/>

WSU Graduate and Professional Writing Center (Professional Development Initiative) – same unit as above
<https://gradschool.wsu.edu/pdi/graduate-professional-writing-center-2/>

Online Websites:

Common Errors in English (Paul Briens, retired from WSU Dept of English)

<https://brians.wsu.edu/common-errors-in-english-usage/>

CUNY School of Law – [Grammar & Style](#) - [editing](#) (menu on left)

Editing and Proofreading (U NC at Chapel Hill) - <https://writingcenter.unc.edu/tips-and-tools/editing-and-proofreading/>

(Google 'self editing strategies', 'self editing law', 'self editing checklist')

Purdue OWL (On-line Writing Lab) https://owl.purdue.edu/owl/purdue_owl.html

Conciseness: Methods of Eliminating Wordiness (more in menu to left)

https://owl.purdue.edu/owl/general_writing/academic_writing/conciseness/index.html

Technical Editing for Scientists (Dr. Bruce Jaffee, UC Davis) <http://jaffeerevises.com/index.htm>

The Writing Process (U Toronto Engineering Communication Program)

<https://ecp.engineering.utoronto.ca/resources/online-handbook/the-writing-process/>

Revising, Editing and Proofreading -

<https://ecp.engineering.utoronto.ca/resources/online-handbook/the-writing-process/revising-editing-and-proofreading/>

Recent online papers containing writing advice:

Arthurs OJ (2014). Think it through first: Questions to consider in writing a successful grant application. *Pediatr Radiol* 44(12):1507-1511. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4236603/>

Cambronero JG et al. (2012). Writing a first grant proposal. *Nat Immunol* 13(2):105-108. <https://www.nature.com/articles/ni.2183.pdf?origin=ppub>

Davidson NO (2017). How to prepare for and write a grant: Personal perspectives. *Gastroenterology* 152(1):7-11. [https://www.gastrojournal.org/article/S0016-5085\(16\)35394-X/abstract](https://www.gastrojournal.org/article/S0016-5085(16)35394-X/abstract)

Franzblau LE, S Koptis, KC Chung (2012). Scientific writing for enjoyable reading: How to incorporate style into scientific manuscripts. *Plast Reconstr Surg* 129(2):543-545. https://journals.lww.com/plasreconsurg/Fulltext/2012/02000/Scientific_Writing_for_Enjoyable_Reading_How_to.46.aspx

Gemayel R (2016). How to write a scientific paper. *FEBS* 283(21):3882-3885. <https://febs.onlinelibrary.wiley.com/doi/full/10.1111/febs.13918>

Genayel R, SJ Martin (2017). Writing a successful fellowship or grant application. *FEBS* 284(22):3771-3777. <https://febs.onlinelibrary.wiley.com/doi/full/10.1111/febs.14318>

Husain M (2015). How to write a successful grant or fellowship application. *Pract Neurol* 15(6):474-478. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4680180/>

Kotsis SV, KC Chung (2010). A guide for writing in the scientific forum. *Plast Reconstr Surg* 126(5):1763-1771. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3052777/>

Lin P, Y Kuo (2011). A guide to write a scientific paper for new writers. *Microsurg* 32(1):80-85. <https://onlinelibrary.wiley.com/doi/full/10.1002/micr.20960>

Plaxco KW (2010). The art of writing science. *Protein Sci* 19(12):2261-2266. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3009394/>

Sessler DI, S Shafer (2018). Writing research reports. *Anesth Analg* 126(1):330-337. https://journals.lww.com/anesthesia-analgesia/fulltext/2018/01000/Writing_Research_Reports.47.aspx

Wisdom JP, H Riley, N Myers (2015). Recommendations for writing successful grant proposals: An information synthesis. *Acad Med* 90(12):1720-1725. https://journals.lww.com/academicmedicine/Fulltext/2015/12000/Recommendations_for_Writing_Successful_Grant.38.aspx