

**A Writing Guidebook
for the
Natural Sciences**

David Godsall



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Why write?

- We must be able to make and defend statements and conclusions

Thoughts can be nebulous, hazy, ambiguous things. They need to be given shape and definition in order to be articulated in writing. Effective writing therefore demands clear thinking. Thoughts that can't be articulated in writing are meaningless; they have no shape or substance. Similarly, failing to communicate a concept clearly and effectively is the same as failing to understand it. This is why writing is important. Thinking with critical acumen and writing clearly, effectively, and persuasively are part of the same activity. As such, they are equivalent in importance.

Sentence Structure

- **Must use complete sentences**
 - Orally we often use fragments
- **Sentence structure relates back to paragraph structure**
 - Relates back to paragraph structure
- **Subject**
- **Predicate**

Sentences

- **Simple**
 - Frank described the party as good clean fun.
- **Complex**
 - *Frank, who was in his fourth year as a Forestry student, had long ago learned his lesson about staying out too late.*
- **Compound**
 - Frank and Miriam usually go to parties on Friday nights; they don't like to be tired in class.

Mix them up

- Paragraphs need to have a mixture
- Must be concise, clear and hold reader's interest

**Dysfunctional sentences are,
more often than not, attributable
to one of two things.**

- **sentence is incomplete**
- **it has multiple clauses without
adequate punctuation**

Microsoft *Word*

- **Spell check**
- **Grammar check**

Fused Sentences

- **Comma Splices**
- **Run-on Sentences**

Punctuation

- **Commas**
- **Colons and semicolons**
 - **The explanation for this phenomenon is straightforward: water flows downhill.**
 - **This phenomenon can be explained by the fact that water flows downhill.**

Punctuation

- **Parentheses () and Brackets []**
 - **Dworkin also argues that, “arguments of principle [as compared to ‘arguments of policy’] are rights-based.”**

Other punctuation

- **Apostrophes**
- **Ending**

Passive Voice

- **Some writers think that using the passive voice makes their work sound more authoritative.**
- **Subjectivity is not a rhetorical handicap; it is the cornerstone of academic discourse.**

Planning

- **Most unsuccessful essays are doomed before the first word is written.**
 - **Poorly planned**
 - **Poorly researched**

What is the central question of this topic?

- **Every essay presupposes a question that needs answering or a problem that needs solving. This question or problem is the hub of your essay. Anything that is not relevant to your central question is peripheral to your argument. Consider unburdening yourself of these bits.**

What is my answer to the central question?

- *Your answer is your thesis.*

What is my strongest evidence?

- You should know what your most robust and persuasive support is going to be before you write your first word. Decide what your three best pieces of evidence are going to be and then think about how you want to present them. You can incorporate more support, but you should establish a hierarchy so that your weaker evidence falls in line behind the really good stuff.**

What am I *not* going to write about?

- This is an important question.

Outlining

- **If you have a detailed outline that establishes the sequence of your argument before you start writing, you are likely to achieve better flow and continuity between paragraphs and individual pieces of evidence.**

Outlining

- **If you prepare a detailed outline you are less likely to ‘ramble’ and meander off topic when you are writing.**

Paragraphs

- **Paragraphs are everywhere. Almost every form of written language, from sonnets to newspaper articles, is organized according to the principle that readers have an easier time following a sequence of ideas if it is broken up into logical, intuitive units.**

Paragraphs

**force writers to organize their
thoughts – or sentences – into
sub-topics**

Filing cabinet analogy

- **Sentences are individual documents**
- **Paragraphs are file folders.**

Topic sentence

- **Evidence**

Transitions

- Transitions link two or more ideas together by identifying their commonalities. This helps the reader to move around the text.
- •Does your document *flow*? Is it easy to read? (Try reading it aloud... if it sounds odd, it probably is.)