

Communication Skills—Writing

Philip Wadler

January 1993 / updated October 2013

Here is advice about writing well, ranging from issues of detail to issues of style. Many of the ideas and examples below are taken from Strunk and White, *The Elements of Style* (Macmillan, 1972).

1 Proofreading

The key to good writing is good reading. It is essential to read what you've written and improve it. Repeat this cycle at least twice: write, read, rewrite, re-read, re-rewrite.

There are standard symbols for marking changes to a document. Changes should be indicated in the margin to draw attention to them. Always make changes in a colour that will stand out, like blue or red; proofreading is sometimes called blue-pencilling.

To delete text, draw a line through the bit to be delete. (You can draw attention to a deletion by writing δ in the margin.)

To insert a word, make a mark \wedge where the word is to be inserted, and indicate the new word in the margin. Sometimes insertions are indicated with λ , or the mirror image of this. A delta (δ) is used to indicate the deletion of unnecessary words.

Two arcs are used to “close up” extra space .

A hashmark ($\#$) stands for extra space.

Don't restrict your rewriting to small changes. If a sentence, paragraph, section, or chapter is wrong, don't hesitate to throw it out and start over. It is often easier to repair an error by starting over than by mere tinkering.

2 Design

An overwhelming number of computer-produced documents simply do not look right. Make sure that this is not the case for you. Study well-designed books to develop an eye for good design. Check that the margins and spaces between lines in your document are reasonable. Check that the paragraphs have a good appearance and are easy to read.

Don't go overboard with different fonts. Section and subsection headings may be in a larger font and bold, as in this document. Use *italics* for emphasis. Mathematics is usually typeset in italic.

Programs often use boldface for keywords and italic for identifiers.

```
program fact(n); {  
  var f : Int;  
  f := 1;  
  for i = 1 to n do  
    f := f × i;  
  return f; }
```

Or use teletype for the literal part of a command, and italics for the variable part.

```
cp src1 ... srcn dst
```

3 Spacing and spelling

Pay careful attention to the spaces in your document. In documents with a monospaced font, use one space between words, or after a comma or semicolon; two spaces after a colon or period. In documents with a variable-width font, one space after a colon or period is considered appropriate. It is an error to have a space before a punctuation mark , or (inside parentheses).

Few things look worse than a spelling error, and there are some errors spell checkers will not catch.

4 Capitalisation

Proper nouns begin with a capital. Cross-references are proper nouns: Chapter 1, Section 1.2, Figure 3. There is an exception to this rule: page 42.

Begin a sentence with a word, not an identifier.

fact computes the factorial function. Function **fact** computes factorials.

5 Punctuation

Punctuation has a pecking order: comma, semi-colon, colon, period. A comma denotes a small pause, a semi-colon slightly larger, colon larger still, and period is so long as to constitute a stop.

Use a comma for parenthetic phrases and conjunction, as described below.

Use a semi-colon to conjoin two distinct sentences; this rule requires little elaboration.

Use a colon to set off a list: think about the ordering of points in your list, separate the points with commas, and put the most important point last.

Use a period to end a sentence.

6 More on commas

Commas should set off parenthetical phrases.

The best way to see a country, unless you are pressed for time, is to travel on foot.

It is a grave error to use a comma at only one end of a parenthetical phrase.

My brother you will be pleased to hear, is in perfect health.

In a series of three or more terms with a conjunction, put a comma after each except the last.

The primary colours are red, yellow, and blue.

Some writers omit the last comma, but most professionals use it. In a list of two short items, omit the comma.

My favourite colours are olive and mauve.

7 Grammar

Don't change tense. Stick either to past or present. (The exception that proves the rule is that you should switch tense when discussing progress of the paper: "In the previous section we saw how to build a fozzle, and the next will show how to add dingbats to fozzles.")

Subject and verb must agree in number.

The bittersweet flavour of youth – its trials, its joys, its adventures, and its challenges – are not soon forgotten.

The bittersweet flavour of youth – its trials, its joys, its adventures, and its challenges – is not soon forgotten

8 The royal *we*

It is fine to use *we* in the sense of "me and you, reader".

Let's recall the definition of a goombah ...

In Section 5, we learned about goombahs ...

We can solve this problem by using goombahs ...

It is wrong to use the royal *we*.

We believe that goombahs are the best thing since sliced bread ...

The following borders on kinky.

We thank our wife for her help with the typing.

9 Referents

The word “this” always refers to the last preceding noun phrase. If this is not what you wish to refer to, be more specific. Also check “it”, “that”, and other pronouns.

Visiting dignitaries watched yesterday as ground was broken for the new high-energy physics laboratory with a blow-out safety wall. This is the first visible evidence of the university’s plans for modernisation and expansion

Visiting dignitaries watched yesterday as ground was broken for the new high-energy physics laboratory, with a blow-out safety wall. The ceremony afforded the first visible evidence of the university’s plans for modernisation and expansion

A phrase at the beginning of a sentence must refer to the subject.

Young and inexperienced, the task seemed easy to me.

You and inexperienced, I thought the task was easy.

Violations of this rule can be quite entertaining.

Being in a dilapidated condition, I was able to buy the house very cheap.

When fried, I love okra. [Can’t stand the stuff when sober.]

10 Restrictive clauses

A phrase is restrictive if it helps specify the subject of discussion; a phrase is non-restrictive if it adds information about a specified subject.

A restrictive phrase is not parenthetical, while a non-restrictive phrase is parenthetical.

People sitting in the rear couldn’t hear. (Restrictive)

Uncle Bert, sitting in the rear, couldn’t hear. (Non-restrictive)

Use “that” for a restrictive phrase, and “which” for a non-restrictive phrase.

The lawn mower that is broken is in the garage. (Tells which one.)

The lawn mower, which is broken, is in the garage. (Add a fact about the only mower in question.)

Strunk and White: “The use of *which* for *that* is common in spoken language. . . . But it would be a convenience to all if these two pronouns were used with precision. The careful writer, watching for small conveniences, goes *which*-hunting, removes the defining *whiches*, and by so doing improves his work.” (We’ll forgive S&W their sexism.)

11 Related words

Keep related words together.

He noticed a large stain in the rug that was right in the centre.

New York's first commercial sperm bank opened Friday with semen sample from 18 men frozen in a stainless steel tank.

He noticed a large stain that was right in the centre of the rug.

New York's first commercial sperm bank opened Friday when semen samples were taken from 18 men. The samples were then frozen and stored in a stainless steel tank.

Careful attention is required to avoid ambiguity.

A proposal to ammend the Sherman act, which has been variously judged
...

Is it the proposal or the Sherman act that has received varying judgements?

The meaning of a sentence can vary greatly depending on the location of a single word.

Only he hit him in the eye.

He only hit him in the eye.

He hit only him in the eye.

He hit him only in the eye.

He hit him in only the eye.

He hit him in the only eye.

He hit him in the eye only.

12 Parallel construction

Express related ideas in related ways. Don't introduce variation for the sake of it; rather, use comparable phrases to draw out the comparison.

Formerly, science was taught by the textbook method, while now the laboratory method is employed.

Formerly, science was taught by the textbook method; now it is taught by the laboratory method.

An article or preposition applied to a series must be applied to either the first member alone, or to all members.

the French, the Italians, Spanish, and Portuguese

the French, the Italians, the Spanish, and the Portuguese

In a conjunction (*but, and; either, or; etc.*) both components should have the same grammatical form. You may need to rewrite the sentence to fix such problems.

My objections are, first, the injustice of the measure; second, that it is unconstitutional

My objections are, first, that the measure is unjust; second, that it is unconstitutional

13 Emphasis

The word *very* is especially overused; never use it unless the word *damn* would work as well.

Place the emphatic words of a sentence at the end.

Humanity has hardly advanced in fortitude since that time, though it has advanced in many other ways.	Since that time, humanity has advanced in many ways, but it has hardly advanced in fortitude.
---	---

Place your most important ideas at the beginning or end of a section, where they will stand out.

Make sure that the first sentence, first paragraph, and first section of your paper are the best you can produce. This will get the reader on your side, and make the reader more forgiving of any later lapses. Ditto, make sure your conclusion is rousing.

14 Images

Base your writing on powerful images. Visualise clearly. Anonymous advice to writers: “Mixed metaphors are a pain in the neck, and ought to be thrown out the window. Avoid clichés like the plague.”

Write with nouns and verbs. Overuse of adjectives and adverbs leads to purple prose. Pick your verbs and nouns carefully. Avoid over-general verbs such as “is” or “use” whenever possible.

Here are two summaries of Macbeth, taken from Strunk and White.

Macbeth was very ambitious. This led him to wish to become king of Scotland. The witches told him that this wish of his would come true. The king of Scotland at this time was Duncan. Encouraged by his wife, Macbeth murdered Duncan. He was then able to succeed Duncan as king. (51 words)	Encouraged by his wife, Macbeth achieved his ambition and realised the predictions of the witches by murdering Duncan and becoming King of Scotland in his place. (26 words)
--	--

The second is shorter, but also uses far more concrete images. The first begins ‘Macbeth was very ambitious’: the weak verb ‘was’ combined with the adjective ‘ambitious’. The second begins ‘Macbeth achieved his ambition’: the strong verb ‘achieved’ combined with the noun ‘ambition’.

Be concrete. Here is a translation of part of the bible into bad modern English.

Objective considerations of contemporary phenomena compels the conclusion that success or failure in competitive activities exhibits no tendency to be commensurate with innate capacity, but that a considerable element of the unpredictable must invariably be taken into account

I returned and saw under the sun, that the race is not to the swift, nor the battle to the strong, neither yet bread to the wise, nor yet riches to men of understanding, not yet favour to men of skill; but time and chance happeneth to them all.

The original is memorable because of its use of strong concrete images, which are entirely absent from the modern version. This example is from George Orwell, "Politics and the English Language", *Inside the Whale and Other Essays* (Penguin, 1957).