



TIPS FOR SOLID TECHNICAL WRITING

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PURPOSE

As the title suggests, this paper is presented to give the student a few valuable insights into the creation of a credible, readable document. It is not meant to be a comprehensive exploration of the vagaries of English composition and all of the murky rules attendant to it; rather, it is simply a brief user's guide that addresses common mistakes in writing. For detailed explanations and discussions of the rules of grammar and punctuation, students should consult a number of books—and even quality websites—dedicated to that end.

INTRODUCTION

Writing is important because, quite simply (and no matter how much you may argue this point), *appearance counts*. Your technical paper or proposal may be the first glimpse a member of the faculty or research community will have of you and, in many cases, perhaps the only contact you will make. For that reason, then, your writing must present a positive image of you and your work, just as though you were actually presenting the paper in person. So, you must attend to your writing the same way you would attend to your personal appearance in that imaginary presentation; it should not be sloppy or slouchy, but must, instead, convey a sure sense of maturity, professionalism, and confidence. In a word, it must be *solid*.

Solid writing is just that; it is something firm and balanced, something that sits squarely before the reader and makes a brief and important statement. Solid writing is not a rambling or ragged document filled with confused sentences that squirm across the page without punctuation or, worse, without purpose. No, solid writing is plain and to the point, yet carefully polished so that, in the end, it shines and gives your paper credibility.

Much of this credibility is lost in writing because of five principal problems:

- poor spelling
- awkward sentence structure
- incorrect punctuation
- inconsistent formatting
- incorrect use of technical terms

This short course concentrates only on two of the problems, *awkward sentence structure* and *incorrect punctuation*. This is not to minimize the importance of the other trouble areas, for faulty spelling, or mismatched formatting or clumsy use of technical terms can doom a document as surely as a garbled, poorly punctuated sentence can, but these problems will be addressed in later sessions.

In this outline, several important terms are explained in the text itself, while those words marked with an asterisk (*) are defined in the "Glossary of Terms" at the end of the document.

BASIC SENTENCE STRUCTURE

Good writing should be like a good song; that is, nothing should jar the reader the way a missed beat or an off-key note would jar a listener of music. And what will help make your writing smooth and jolt free is understanding the difference between an *independent clause* (also known as a main clause) and a *dependent clause* (also referred to as a subordinate clause), and how the two, in various combinations, should be punctuated.

Clause

A *clause* is any group of *related words* that contains both a *subject** and a *verb*. *

Julio laughed.

While Julio laughed

She is older than her brother.

When the dog barked

Independent Clause

An *independent clause*, as the term suggests, can *stand by itself* as a complete *sentence*.*

Julio laughed.

She is older than her brother.

Karen can stay out later.

Dependent Clause

A *dependent clause*, on the other hand, *depends* on some other word or group of words to give it grammatical meaning.

When the dog barked

While Julio laughed

Because she is older than her brother

When the dog barked, Julio laughed.

Julio laughed when the dog barked.

Because she is older than her brother, Karen can stay out later.

PUNCTUATION

End Punctuation

Always terminate a sentence with *end punctuation*, which is a *period* (.), a *question mark* (?) or an *exclamation point* (!). A period is used after a *direct statement**, a *mild command**, or an *indirect question**, while a question mark is used after a *direct question*.

Although an *exclamation point* is used after an emphatic statement or command, *do not* use it in scholarly or business writing. It is the written equivalent of rude shouting or pointing.

Comma

A *comma* is always placed inside a sentence, and it is used principally to separate two *independent clauses* linked by *conjunctions**, to set off *introductory elements**, to separate items

in a *series*, to separate *multiple modifiers**, to set off *nonessential elements**, and to separate parts of *dates* and *addresses*.

When in doubt whether or not to insert a comma, *insert it*. The overuse of a comma is not as problematic as the underuse or nonuse of it.

Separating Two Independent Clauses Linked by Conjunctions

She lectured her class on ethics, and she expected every student to listen closely.

He would have dropped out of school, but his uncle persuaded him to stay.

Note: Omitting both the comma and the conjunction creates an ungrammatical *run-on sentence**, while using the comma but leaving out the conjunction produces an equally improper *comma splice*.*

Wrong: *She lectured her class on ethics she expected every student to listen closely.*

Wrong: *He would have dropped out of school, his uncle persuaded him to stay.*

Setting Off Introductory Elements

If Stephen King had written songs, they would have been just as terrifying as his novels.

Exhausted, Mario staggered across the finish line.

Finding no one at home, Kelly returned to her car and drove away.

Note: Some introductory elements that serve as a *noun* will *not* be set off by a comma:

Keeping the fire going seemed more important than searching for water.

What Peggy really disliked was being called "Piggy."

Separating Items in a Series

The colors purple, orange, blue, and green are never used in his artwork.

He wanted workers who were well trained, properly dressed, and eager learners.

Separating Multiple Modifiers

The dirty, dented car was found in an abandoned lot.

She was a faithful, sincere friend.

Separating Dates and Addresses

July 4, 1776 was the day the Declaration of Independence was signed.

Bobby lives at 5262 Laurie Lane, Memphis, Tennessee, USA

Semicolon

Use the *semicolon* (;) to separate *two independent clauses* that are closely *related*, with *nevertheless* and *however* to connect *two independent clauses*, and in a series that, in itself, contains a series of commas. To make it easier to understand the use of the semicolon, think of it as a *weak period* or a *strong comma*.

Separating Two Closely Related Independent Clauses

Writing cheap fiction was only one of his hobbies; he also liked to play handball.

I was not inclined to date as a youth; I knew romance would arise later.

The rocket roared from its launching pad; it was stupendous to behold.

“Nevertheless” and “However” Connecting Two Independent Clauses

Blue jeans have become fashionable everywhere; however, some cultures disapprove.

My friends all deserted me; nevertheless, I continued on my journey.

Note: Other “sister” words punctuated similarly to “*nevertheless*” and “*however*” are “*furthermore*”, “*consequently*”, “*thereafter*”, “*meanwhile*”, and “*moreover*”.

Note: When not connecting two independent clauses, separate “*nevertheless*” and its sister words with a comma.

Blue jeans, however, have become fashionable everywhere.

Series Containing Commas

The report named Cyndy, Roberto, Buster and Nacho; their instructors, Dr. Philburn, Dr. Calderon, and Dr. Garcia; and the reviewers, Mr. Mora, Ms. Keene, and Ms. Liu.

The low, thumping bass; the piercing, shrieking lead guitar; and the steady, incessant, elliptical beat of the drums powered the all-female band into first place.

Colon

Use a *colon* (:) as an *introducer*, always preceded by an *independent clause*.

Rock ‘n’ roll is simple in its definition: music that sets the heart and soul thumping.

He can make at least three comfort foods: meat loaf, enchiladas, and soup.

Chocolate has one glaring drawback: calories.

OTHER COMMON ERRORS

Parallel Construction

Whenever you have more than one element playing the same grammatical role, you should try to use elements that have the same form. This is called *parallelism* or *parallel construction*.

They enjoy painting, sculpting, and singing.

They depicted what they had seen and what they had only imagined.

Wrong: They try painting realistic scenes and to sculpt abstract figures.

Echoes

When writing, try to avoid the *repetition* of the same word or phrase in a relatively short passage. This “*echo*” will give your writing a metronomic, simplistic tone, and it can easily be avoided by using a similarly defined word or a *pronoun*.*

They roamed the desert, knowing that the desert was hospitable to desert people, but hostile to those not familiar with the desert.

Improvement: They roamed the desert, knowing it was hospitable to those familiar with hot climates, but hostile to those from cooler parts of the country.

Possessives

To indicate *possession* or *ownership*, use an *apostrophe* (‘) plus an “s” after *singular* words (even if the word ends in “s”) and only an *apostrophe* after *plural* words ending in “s.”

The dog's hair was matted and dirty.

Kiko Macia's skillful card tricks pleased the audience.

Henry James's novels are difficult to read.

The five workers' incomes were subject to the new tax.

Note: With plural words that do not end in an “s,” add apostrophe and “s.” The children's books were all destroyed.

Past Tense (“ed” endings)

The simple past tense of a verb is generally formed by adding “d” or “ed” to the plain form.

Many artists lived in town before the galleries burned down.

The students walked to school and exercised in the gymnasium.

Note: Many verbs in English are irregular and form their past tense in different ways: They taught school and, afterwards, bought toys which they gave to the children they found at the church.

Active/Passive Voice

When the *subject* of a sentence *acts*, that is called the *active voice*; however, when the subject is *acted upon*, that is the *passive voice*. Avoid the passive voice if at all possible.

Active: *We thought the exam unfair and too lengthy.*

Passive: *The exam was thought by us to be unfair and too lengthy.*

Active: *I shall remember my first visit to Guadalajara.*

Passive: *My first visit to Guadalajara will always be remembered by me.*

Note: In some instances where the actor is unknown, you may need to resort to the passive voice. *Ray Pringle was murdered after he returned home.*

Commonly Misused Words

Note: When using any of the words below, please pause and check that you are using the word properly. Add to the list as you discover new words that you tend to misuse.

specially, especially

principal, principle

there, they're, their

complimentary, complementary

compliment, complement

that, who

between, among

GLOSSARY OF TERMS

comma splice—a sentence in which two independent clauses are improperly joined by a comma without a conjunction.

It is nearly half past five, we cannot reach town before dark.

conjunctions—words that connect two phrases or clauses, such as “and”, “but”, “or”, “nor”, “so”, and “yet”.

*We worked hard, and the rewards were great.
I found myself out of money, so I walked back home.*

direct statement—

indirect statement—

introductory elements—a word or words that begin a sentence and affects the independent clause that follows.

*With the end of the semester in sight, she bore down on her studies.
Fortunately, the news is good.*

mild command—

multiple modifiers—words that equally modify the same word.

The ornate, priceless vase was placed in the museum.

phrase—group of words that lacks either a subject or a verb, or both.

*fearing an accident
in a panic*

pronoun—a word that substitutes for a noun, such as “I”, “you”, “he”, “she”, “it”, “we”, and “they”.

run-on sentence—a sentence in which two independent clauses are joined without appropriate punctuation or conjunction.

It is growing dark we will never finish repairing the roof.

sentence—a unit of expression that is grammatically complete and independent.

The mayor and her assistants flew to New York for the conference.

subject—a word or group of words that names something.

Art can be controversial

The meaning and value to society are often disputed.

verb—a word or group of words that express an action.

A few artists live in town today.

He has climbed many mountains in his life.