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Introduction to this handout

This handout in no way substitutes taking a technical writing course but is intended to communicate some of the concepts taught in such a class to those who have not had the opportunity of taking one. This handout is a summary of some of the most important information found in most technical writing classes and texts. This is intended to be a reference to help you develop your writing style to a professional level. It is recommended that this handout is used as a starting point in making this transition. For more information an any of the topics discussed please seek any of the references provided.

Purpose

There are two general purposes for technical writing:

- <u>To inform</u> (reports, instructions, descriptions)
    - To provide the audience with factual information
- <u>To persuade</u> (proposals, recommendations)
    - To convince the audience to draw the desired conclusions from the provided information

To inform

- Remain as concise as possible.

- Explain ideas in enough detail to make it understandable to your audience.

- Given to new method – For each new piece of information tie it in to knowledge the audience already has.

To persuade

- Try to remain, or appear to remain, as objective as possible.

- Appeal to logic not emotion.

- Provide evidence for all arguments

- Answer the question "Why?"

  - "Why is this important?", "Why is this beneficial?", "Why is this a problem?"

Audience

- Just as you have a purpose in writing, your audience has a purpose in reading.

- Your goal is to ensure that the ideas you have when writing are the same ideas that your audience has when reading.

- Determine who your audience is so you can focus in on as small a group as possible.

  - The broader the audience the larger the chance that the same information will be interpreted in different ways.

How to determine your audience

- Do this by considering the following questions.
  - What is their area and level of education?
  - What is their knowledge of your subject?
  - What is their position?
  - What is their demographic information?
  - What is the relationship or status that exists between your audience and yourself?

Style and diction

- There are two fundamentals to increasing the probability that your audience will interpret your work as you intended.

  - Be clear.

  - Be concise.

Clarity

- [Avoid ambiguous pronoun reference](#).
- [Avoid ambiguous modifiers](#).
- [Break up long noun strings](#).
- [Prefer the active voice](#)
- [When to use the passive voice](#)
- [Avoid nominalizations](#)
- [Maintain parallelism](#)
- [Use transition words](#)
- [Use intelligent repetition](#)

Avoid ambiguous pronoun reference

Ambiguous

Our terminal patients enjoy the warm days while they last.

Clear

While the warm days last, our terminal patients enjoy them.

Avoid ambiguous modifiers

Ambiguous

Only press the red button in an emergency.

Clear

In an emergency, press the red button only.

Break up long noun strings

Complex

Surplus production energy capacity price fluctuation control policies seem doomed to failure.

Clear

The policies for controlling price fluctuations caused by surplus production in energy capacity seem doomed to failure.

Prefer the active voice

- Active voice sentences clearly state who the actor is and what the actor is doing.

Unclear

The formula was discovered by the scientist.

or

The formula was discovered.

Clear

The scientist discovered the formula.

When to use the passive voice

- When the actor is commonly known

- When the actor is irrelevant

- When telling what you did in a report or other document (excluding introduction and conclusion.)

  - Say "The two wires were connected" not "I connected the two wires."

  - But still say "The second method produced better results" not "Better results were produced by the second method."

Avoid nominalizations

- Nominalizations are verbs that are turned into nouns. Ex. reduce $\Rightarrow$ reduction

Unclear

The new system lead to a reduction in costs.

Clear

The new system reduced costs.

Maintain parallelism

- Parallelism is putting related ideas into the same form.

Nonparallel

Tungsten steel alloys are tough, ductile, and have a great deal of strength.

Parallel

Tungsten steel alloys are tough, ductile, and strong.

Use transition words

- Use transitions words to combine thoughts between sentences.

- These words make the flow smoother and the transition less abrupt.

  - However
  - Therefore
  - Although
  - Additionally
  - Furthermore

  - Nevertheless
  - Likewise
  - Alternatively
  - Conversely
  - Consequently

Use intelligent repetition

- Don't use different words to represent the same idea.

Unclear

Land deterioration is a major problem today. Many causes of such degradation exist.

Clear

Land deterioration is a major problem today. Many causes of such deterioration exist.

Concision

- [Eliminate redundancy](#)

- [Write positively](#)

- [Paragraph often](#)

- [Use reasonable sentence length](#)

- [Limit "to be" verbs](#)

- [Delete meaningless words](#)

- [Delete doubled words](#)

- [Delete redundant categories](#)

- [Reduce phrases to words](#)

Eliminate redundancy

- Remove words that can be inferred from another.

  - *Past* history
  - *Basic* essentials
  - *Completely* finished
  - *Mutual* cooperation

  - *Dead* corpse
  - *End* result
  - *The month of* May
  - *Utter* devastation

Write positively

- It usually takes more words to say covey the same idea in a negative form than in a positive form.

Positive

Write positively.

Negative

Do not write negatively.

Paragraph often

- Paragraph often to break up dense text.
- A good rule of thumb is 60-100 words for an average paragraph.

Use reasonable sentence length

- Keep sentences so that readers don't have to remember too much information to understand the sentence.

- Most sentences average 20 words.

- If a sentence is exceeding 40 words try to find a way to break it up into smaller sentences.

Limit "to be" verbs

- Limit the use of conjugations of the verb "to be."

Wordy

It was the second method that we used.

Concise

We used the second method.

Delete meaningless words

- Avoid words that do not add any meaning to a sentence.
  - Basically
  - Generally
  - Kind of
  - Actually

The picture was kind of blurry.

means the same as

The picture was blurry.

Delete doubled words

- Do not use word pairs that mean the same thing.

  - Goals and objectives
  - First and foremost
  - Basic and fundamental
  - Hopes and desires

  - Each and every
  - Fully and completely
  - One and the same
  - Ways and means

Delete redundant categories

- Many words imply their category.
- Don't restate the category after such words.

- Round in shape
- Large in size
- Blue in color
- Heavy in weight

- Sour in taste
- Shinny in appearance
- Smooth in texture
- Honest in character

Reduce phrases to words

- Many phrases can be expressed in a fewer number of words or even a single word.

  - For this reason $\Rightarrow$ so
  - Do to the fact that $\Rightarrow$ because
  - At a much greater rate than $\Rightarrow$ faster
  - Despite the fact that $\Rightarrow$ although
  - A great deal of $\Rightarrow$ much

Organization

- One of the surest ways to confuse a reader is to have a poor organizational scheme.
- Choose the organizational method based on the document being written and the information going into it.
- The three most common methods are:
  - Chronological
  - Deductive
  - Inductive

Chronological

- A chronological scheme organizes information based on the time of occurrence.

- Chronological organization is usually used in describing processes or giving instructions.

Deductive

- Deductive organization is also know as division.

- Start with the larger ideas and break them down into smaller parts.

- General $\Rightarrow$ specific

Inductive

- Inductive organization is also known as classification.

- Start with the smaller ideas and build the larger ideas out of these smaller ones.

- Specific $\Rightarrow$ general

Available resources

- The following resources are available for more information on the any of the topics covered in this document or just for general information on any aspect of technical writing.

- The resources are organized into the following categories:

  - Books
  - Web sites
  - People
  - Other

Books

- Bly, R., & Blake, G. (1982). <u>Technical writing: structre, standards, and style</u>. New York: McGraw-Hill.
- Finkelstein, L, Jr. (2000). <u>Pocket book of technical writing for engineers and scientists</u>. New York: McGraw-Hill.
- Jones, D. (2000). <u>The technical communicator's handbook</u>. Needhem Heights, Ma: Allyn and Bacon.
- Pearsal, T. (2001). <u>The elements of technical writing</u>. Needham Heights, MA: Allyn and Bacon.
- Vanalstyne, J., & Tritt, M. (2002). <u>Professional and technical writing strategies</u>. Upper Saddel River, NJ: Prentice Hall.
- Williams, J. (1990). <u>Style: toward clarity and grace</u>. Chicago, IL: Scott, Foresman, and Company.

Web sites

- Karper, e. & Neyhart, D. <u>Perdue online writing: lab</u>http://owl.english.purdue.edu/
- <u>The writing center at Rensselaer:</u> http://www.rpi.edu/dept/llc/writecenter/web/
- McMurrey, D. <u>Online technical writing: online textbook:</u> http://www.io.com/~hcexres/tcm1603/acchtml/acctoc.html
- Strunk, W., Jr. <u>The elements of style:</u> http://www.bartleby.com/141/index.html

People

- Odell, Lee. LL&C department, Sage 4302, odellc@rpi.edu

- Swarts, Jason. LL&C department, Sage 2510, swartj@rpi.edu

- Eaton, Angela, LL&C department, eatona@rpi.edu

- Hart-Davidson, William, Lee. LL&C department, Sage 4402, hartdw@rpi.edu

Other

- The writing center at Rensselaer. Sage 4508. writingcenter@rpi.edu

- Online writing help. AOL Instant Messenger screen name: instant writer

- Technical and professional communications, WRIT-4120