Technical Writing: A Definition

Technical writing is communication written for and about business and industry, focusing on products and services: how to manufacture them, market them, manage them, deliver them, and use them.

Technical writing is written:
- in the work environment (in the office, from 8:00 to 5:00, not counting overtime)
- for supervisors, colleagues, subordinates, vendors, and customers
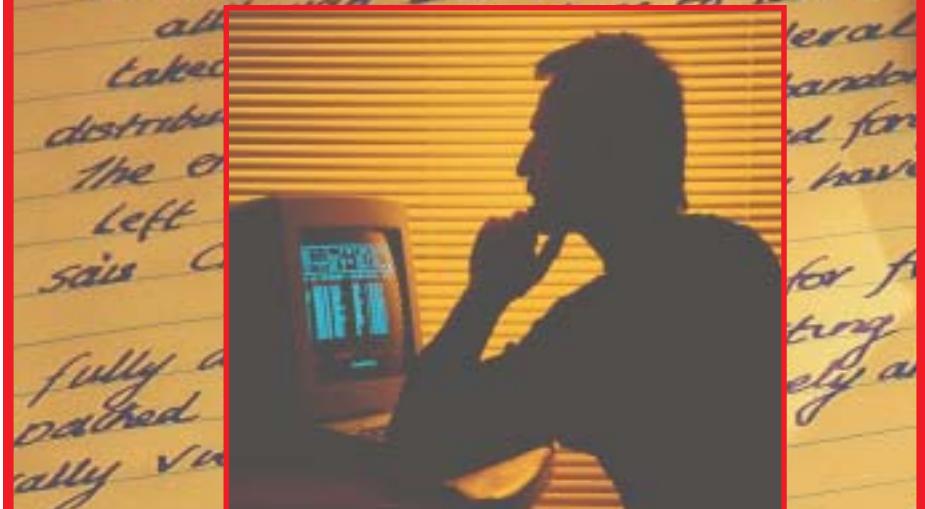
Technical writing, which must be understood easily and quickly, includes:
- memos and e-mail
- letters
- reports
- instructions
- brochures and newsletters
- the job search
- web pages
- fliers
- PowerPoint presentations
- graphics

Technical writing is the resumé that helps get a job and the web page that promotes a company.

In each case, the technical document must be quantifiable, precise, and easily understood.

Why Teach Technical Writing?

Why is technical writing so important?

Why would I want to teach technical writing?
Don't I have enough to teach now without adding one more assignment or series of assignments to my curriculum?
What's the point?

- Technical writing is not literature; it's neither prose which recounts the fictional tales of characters nor poetry which expresses deeply felt, universal emotions through similes and metaphors.

- Technical writing is neither an expressive essay narrating an occurrence nor an expository essay analyzing a topic.

- Technical writing is not journalism, written to report the news.

- Technical writing does not focus on poetic images, describe personal experiences, or report who won the basketball game.

Instead, technical writing is:
—an instructional manual for repairing machinery
—a memo listing meeting agendas
—a letter from a vendor to a client
—a recommendation report proposing a new computer system

Once students are employed, will they have to write on the job? The answer is a resounding **YES!**

One reason for teaching technical writing is so students will know the types of documents they will write on the job.

Students often do not believe they will have to write at work; they assume that once their education is completed, writing will be a distant memory. They are wrong.

When our students are employed and have to write on the job, will they write essays?

The answer is no. Our students, when employed, will not write essays at work. They will write essays while working on their college degrees; they might even be asked to write an essay on their job application when applying for work. However, once the job begins, essays end.

What takes the place of the essay?

The answer is technical writing—memos, letters, reports, e-mail, proposals, instructions, even web pages. That's why technical writing is important. Technical writing is the type of written communication that our students will be responsible for on the job.

Is technical writing a necessary component of every employee's professional skill?

Daily, newspapers tell us that employers want to hire people who can communicate effectively, both in writing and orally. Career counselors reiterate this.

- In fact, we are told that on the job, an employee will spend at least 20 percent of his or her time writing.
- This number increases as an employee's responsibilities increase.
- Managers spend up to 50 percent of their time writing.
- CEOs spend between 80 and 100 percent of their work week communicating.

How does technical writing compare/contrast to traditional essays?

Technical writing is different from other types of written communication. Does that mean, therefore, that you must relearn all your teaching skills to accommodate this new communication beast? Absolutely not. Many of the writing skills you already teach are applicable to technical writing. Others are less valid.

"Technical writing would come in handy for some students, such as our vo-tech kids. When they enter the job market, they could benefit by knowing how to write at work.

But what about our college-bound students? Why would they need technical writing?"

Here is a reminder…

College lasts only four to six years. In K-12, we should continue to prepare our students for college by teaching essays. In addition, we should prepare them for what comes next—their jobs. After they graduate with their AA or BA or BS, they go to work where they will write memos, letters, and reports.
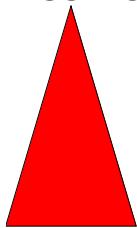
The career and technical education students—the students who will work as mechanics, welders, office help, or daycare center assistants—can benefit by learning how to write technical documents.

However, our students who acquire associate degrees and bachelor degrees—the students who go on to become computer programmers, CAD/CAM operators, dental hygienists, fashion merchandising specialists, graphic artists, engineers, architects, accountants, doctors, and lawyers—also will need to write memos, letters, and reports.
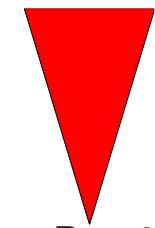
On the next page is a ***Communication Continuum*** *including traits and examples of five types of writing, ranging from the* ***connotative*** *to the* ***denotative.***

Communication Continuum

Connotative/Expressive

Type of Writing	Examples	Traits
Creative Writing	Poems, plays, stories	Connotative and expressive words, fictional characters, imagery, and plots
Expressive Writing	Narratives, descriptions	Subjective, based on personal experience, connotative and expressive words
Expository Writing	Comparison/contrast, analysis, cause/effect, argument/persuasion	Objective, connotative and denotative words
Journalism	News stories, features, editorials	Objective, written from factual observation, short sentences and paragraphs, some connotative but more denotative words
Technical Writing	Memos, letters, reports, instructions, resumés, web pages	Objective, written about products or services, short sentences and paragraphs, denotative words

Denotative/Objective

Legend: ☐ **Connotative** ■ **Denotative**

Of course, there are exceptions…
Newsletters, sales letters, websites, and fliers might include promotional information. Such sales details could depend on expressive words—maybe even fictional characters. However, generally speaking, most technical writing is denotative versus connotative.

On the next page is a poem about a tennis shoe as well as technical specifications for manufacturing the same shoe.

These two writing samples further illustrate the difference between technical writing and other types of writing.

Ode to a Shoe

My son's tennis shoes rest temporarily in a
heap against the kitchen door,
their laces soiled, their tongues hanging out
like exhausted terriers.
The soles, worn down on the insides from
sliding into second,
are green, the shades of summer.
Canvas exteriors, once pristine white, are the
colors of the rainbow —
sun bleached, mud splattered, rained on,
ketchup and mustard adorned,
each shoe shouting a child's joyous
exuberance: "I'm alive!"
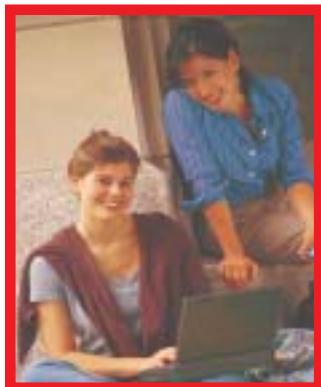
Technical Specifications for Manufacturing Tennis Shoes

The D40 Slammer Tennis Shoe will be manufactured to the following specifications:

Sole:	Neoprene rubber #345
	white enameled paint
	1.589" high
	Slammer waffle-textured©
Uppers:	Blue canvas
Tongue:	White canvas
	Oval Slammer©logo heat-pressure sealed, centered .50" from all sides
Laces:	15" long
	100% cotton
Aglets:	Clear polyacetate plastic #290
Weight:	1 lb. 6 oz.

"Unclear writing costs American businesses real money—over one billion dollars a year, according to one estimate…Did you know the Three Mile Island nuclear power plant meltdown was partly attributed to poorly written procedures?"

("Why Dick and Jane Can't Write on the Job…and How to Help Them," Janet Van Wicklen, *American Society of Training and Development,* 2000).

"The ability to communicate effectively is the most important skill you can have, whether you're giving speeches, pitching ideas to your boss, or simply sending off an e-mail or leaving a voice message."

("What You Need to Know About Career Planning," < http://careerplanning.about.com/cs/importantskills/> 2002.)

The graphic appearing on the next page examines how technical writing compares and contrasts to essays.

Comparison/Contrast: Technical Writing vs. Essays

Components	Technical Writing	Essays	Summary
Development	• Uses examples, anecdotes, testimony, data, research	• Uses examples, anecdotes, testimony, data, research	Same for both
Grammar	• It is important!	• It is important!	Same for both
Organization	• Provides an introduction, body, and conclusion • Uses a subject line vs. a thesis and itemization of points vs. transitional words • Uses topic sentences only when needed, dependent upon the type and length of correspondence	• Provides an introduction, thesis statement, body paragraphs, transitional words, and topic sentences	Similar in some ways, different in others
Style	• Uses short, denotative words; short sentences; and short paragraphs	• Uses longer, connotative words; longer sentences; and longer paragraphs	Different
Document Design	• Uses **highlighting techniques**, such as graphics, headings, subheadings, various fonts, white space, bullets, etc.	• Not usually a factor	Different

People read literature for pleasure, essays for enlightenment, and journalism for news. People read technical writing to accomplish a job.

The five components listed above are discussed in greater detail on the following pages.

Five Components of Writing

Development

If you have been teaching your students to develop their essays using such traditional means as examples, anecdotes, testimony, data, and research, then teaching technical writing will not be a strain. The same development techniques are applicable when the students write memos, letters, and reports.

Grammar

Grammar is important in essays. It might be **more** important in technical writing. Whereas errors often can hide in longer essays, those same errors loom large in one page memos or letters.

In a survey (Gerson) of over 700 technical writers (coast to coast) asked to list important aspects of correspondence, 98% ranked correct grammar as an essential component of successful writing.

Grammar is not merely the concern of English teachers. Professional writers and business people perceive it as essential.

Organization

Essays employ topic sentences, transition between and within paragraphs, and a thesis statement. Technical writing usually does not. In a memo, letter, or report, the thesis would be replaced by a subject line. The different aspects of organization help distinguish technical writing from essays.

Since paragraphs are shorter in technical writing (often between one to three sentences) than in many essays, topic sentences are less important. Transitional words and phrases in an essay can be replaced by an enumerated list, by a list of bullets (●■♦□, etc.), and/or by headings and subheadings.

Style

Of greater importance is the different style (word usage, sentence structure, and paragraph length) used in essays versus technical writing. Essays rely on longer, more connotative words; longer, more complex syntax; longer, more detailed paragraphs. Technical writing, in contrast, demands short, denotative words; short, simple sentences; short

paragraphs with information clarified through graphics (pie charts, line graphs, etc.). It has everything to do with audience and purpose.

The reader of technical writing does not have time, nor necessarily an interest in the subject matter. Envision this scenario. It is the night before Christmas, your children are asleep, and you are trying to put together a Christmas present—a doll house, a train set, etc.

To assemble this present, you are sitting on the floor (you have been sitting there for two hours, as your aching back attests). You are trying to read the complicated instructions which accompanied the toy (those instructions are a type of technical writing). You do not enjoy the activity. In fact, you just want to end the task and go to sleep. That is a typical technical writing situation.

The same holds true when you read an instruction to install software, build a cabinet, lay tile, or any other task. People do not read technical writing, such as instructions, for pleasure. The writing is a means to an end. Thus, to help people accomplish the task as quickly and as efficiently as possible, the writing style should be concise—short words, short sentences, and short paragraphs.

Document Design

Document design refers to the physical layout of the correspondence. Essays consist of words, words, and more words, separated by indentations to create paragraphs. Technical writing, in contrast, uses highlighting techniques and graphics for visual appeal to help the reader access and understand the data.

Technical writing is written to a different audience for a different purpose than essays.

The reader of technical writing does not have time, nor necessarily the interest in the subject matter.

Conclusion:

If we want students to write technical documents, we need to define what technical writing is and provide a context for writing such documentation. This first chapter may be used to accomplish those goals.

End-of-Chapter Activities

Read, Lecture, Invite, and Test

Read this chapter for your own knowledge. Use this information to acquire a better understanding of technical writing or as a reminder of what you've always known. **Lecture** from the chapter. Teach from this information to clarify for your students why technical writing is important, what technical writing entails, and how it differs from the type of writing they are used to. **Invite** people from business and industry to your classroom to discuss how technical writing is important to them. **Test** students on the information in this chapter. A short test could include the following:

- What percentage of time does a manager spend writing? Or a new employee, or a CEO?
- How does technical writing differ from essays? List at least three ways.
- Define technical writing. List five types of technical writing.
- Explain the writing continuum, giving examples to prove your points.

Have students create their own definition of technical writing

- Students could gather examples of technical writing (such as memos, letters, reports, brochures, or instructions), or you could bring in examples (this *Teachers' Guide* provides you several examples). The students can get examples from their parents, from businesses, or in your school's office.
- Once they have examples, break the students into groups and have them review the examples.
- Ask them to brainstorm the examples' unique characteristics (page layout, length, tone, content, word usage).
- Next, give them essays—or poetry, or drama, or a short story, or a newspaper. Ask them to compare the technical writing to the other types of correspondence.
- Based on these discussions, ask the students to create their own list of technical writing criteria.
- Finally, ask the students to create a technical writing rubric, perhaps comparing it to Six Traits.

Write and Rewrite

Have the students write a poem (or an expressive essay or an expository essay) about a classroom object (a stapler, an eraser, etc.). Then have the students take the same subject and write a technical memo, complaint letter, recommendation report, instructions for using the object, or a manufacturing specification. Compare and contrast the results.