Cairo University
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Postgraduate Studies

Gen 600: Technical Writing
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Report Writing

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Table of Contents

The Writing Process

Basic Steps for Producing Effective Three-Part Texts

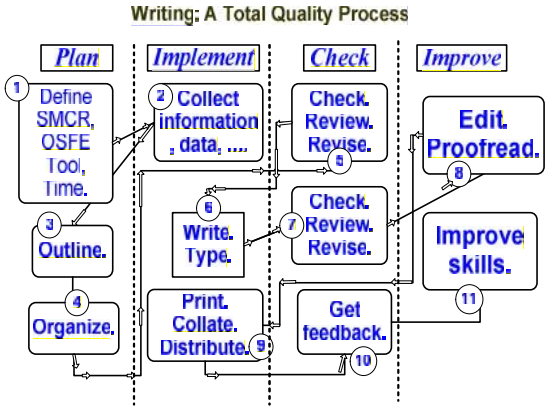
1. Define the basic elements of the communication process: SMCR
2. Define the objective (O) of writing: It informs, requests, proposes, persuades, refutes, explains, shows, , narrates, details, clarifies, justifies, says yes, says no, introduces, promotes,....
3. Define the appropriate form of writing to suit O, S, and R: telex, letter, memo, article, proposal, report.
4. Collect data about the subject. Put down on paper all data and ideas about the subject; list these ideas as they show up without specific order.
5. Outline each idea (use topic, sentence, or mixed outlines).
6. Organize your outline to show the basic parts of the form: Introduction, Body, and Conclusion. Use the organized outline as a plan for your writing.
7. Write the first draft. Develop the basic ideas of the message into sub-topics; write a topic sentence for each sub-topic; then expand each topic sentence. Select the appropriate development pattern for each topic sentence. Write first the part where words flow easily -You need not start from the beginning. Pay special attention to the introduction, and the conclusion. Tips for ways to begin could be of help to you.
8. Revise your text. Use the following order; check only one item at a time:

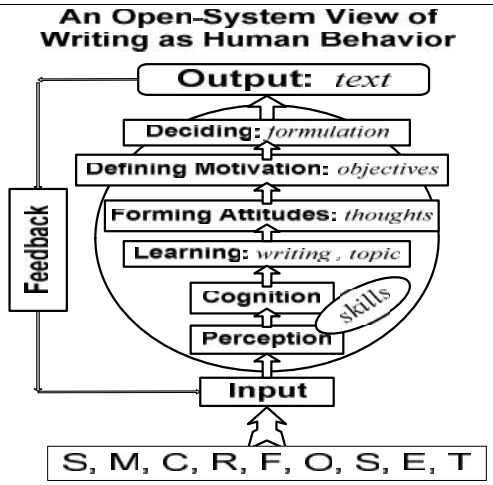
- Revise sentences for conciseness, unity, grammar and mechanics, clarity, cohesion, emphasis, preciseness and word propriety, and variety.
- Revise paragraphs: Check topic sentences, unity, development, cohesion and transition between sentences and between paragraphs.
- Revise the whole text: verify the thesis statement, the objective or purpose statements, unity, cohesion, the introduction, the conclusion, the acknowledgment, the nomenclature, references, and appendices.
- Revise graphs, tables, and illustrations.

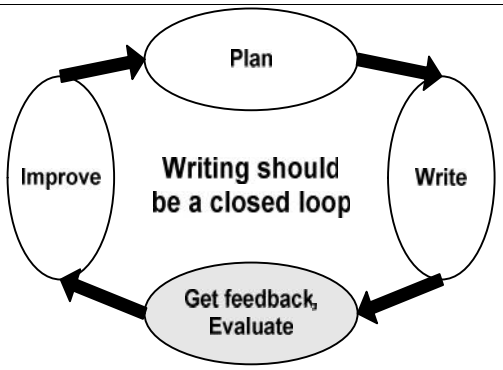
9. Write and revise the summary or the abstract (informative or descriptive); these are especially needed for articles and long reports.
10. Field-check your report by someone who represents a potential reader; seek the help of your colleagues. Check the soundness of your arguments.
11. Edit your text for formatting, pagination, titles, numbering of headings and subheadings. Check the use of white space; and the use of face, font and size.
12. The quality of the final form is important: produce the report in a presentable form. For scientific articles, follow publisher's rules. internal reports, follow the rules of your establishment.
13. Send the final form to the reader, or publisher. Follow up with the receivers to know their feed-back, and Evaluate performance according to initial objectives. Draw lessons and conclusions to improve your writing skills.

How To Improve Writing?

Writing improves by *reading* **good texts and by** *building vocabulary*, **by** *learning and applying basics*, **and by** *practicing and improving skills*.

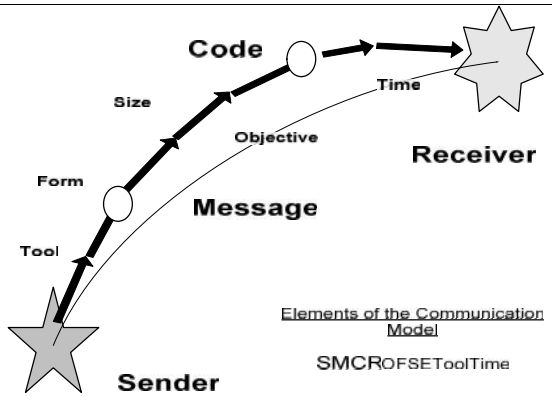


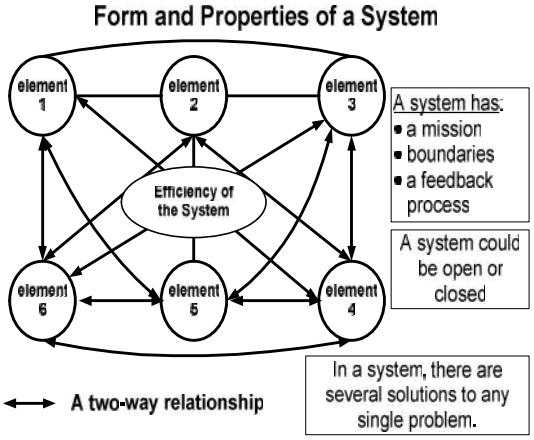


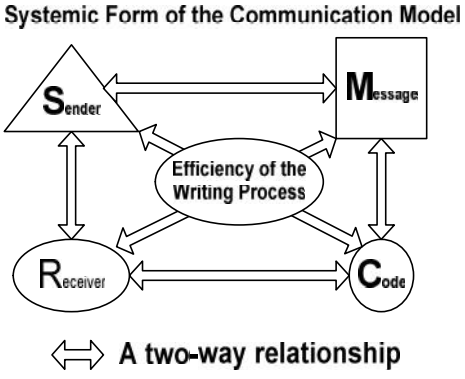


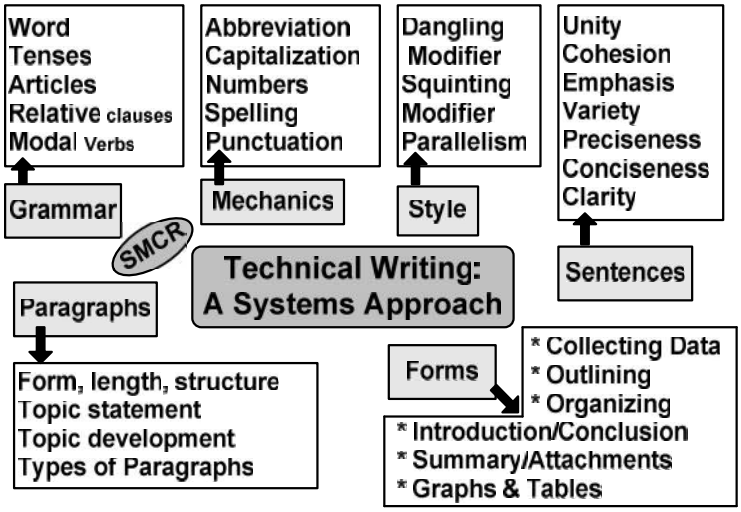
Without evaluation, you would not close the loop.

In many cases it is not a closed loop.
Something is missing









A. Purposes of Writing

- To explain, to inform, to details
- To argue (prove or convince, justify)
- To analyze, discuss

B. Definitions of the thesis statement

After a brief introduction of your topic, you state your point of view on the topic directly and often in one sentence. This sentence is the **thesis statement** and it serves as a summary of the argument you'll make in the rest of your paper.

Every paper you write should have a main point, a main idea or central message. The argument(s) you make in your paper should reflect this main idea. The sentence that captures your position on this main idea is what we call a thesis statement.

A thesis statement . . .

- Makes an argumentative assertion about a topic; it states the conclusions that you have reached about your topic
- Makes a promise to the reader about the scope, purpose, and direction of your paper
- Identifies the relationships between the pieces of evidence that you are using to support your argument

A thesis statement:

- tells the reader how you will interpret the significance of the subject matter under discussion.
- is a road map for the paper; in other words, it tells the reader what to expect from the rest of the paper.

- directly answers the questions asked of you. A thesis is an interpretation of a question or subject, not the subject itself. The subject, or topic, of an essay might be World War II or Quantum Mechanics; a thesis must then offer a way to understand the war or the information that others might ask.
- is usually a single sentence (maybe two) somewhere in your first paragraph that presents your argument to the reader. The rest of the paper, the body of the essay, gathers and organizes evidence that will persuade the reader of the logic of your interpretation.

C. Descriptions, Structure, Length, position, and differences from normal discourse

C.1 If your assignment asks you to take a position or develop a claim about a subject, you may need to convey that position or claim in a thesis statement near the beginning of your draft. When an assignment asks you to analyze, to interpret, to compare and contrast, to demonstrate cause and effect, or to take a stand on an issue, it is likely that you are being asked to develop a thesis and to support it persuasively.

What does it look like?

We will take some ideas and turn them into some possible thesis statements.

Statement of Purpose: "I want to learn about what has influenced progress the last 50 years.

Possible thesis statement : The last 50 years has been heavily influenced by the advent of computer.

Statement of Purpose: "I want to find out some ways to stop violence."

Possible thesis statement Gang activity can be stopped by a combined approach which consists of supervised social programs, more job availability, and closer family relationships.

or

Violence can only be stopped with early education in the public school systems.

Statement of Purpose: "I want to know how close we are to a cure for AIDS."

Possible thesis statement: Although much research has gone into finding a cure for the AIDS virus, we are no closer to a real cure than we were when the disease first became known.

or

After years of research , scientists are on the verge of discovering a cure for the AIDS virus.

There is more than one way to write a thesis statement, depending on what you find out in your research and what your opinion is.

C. 2 The thesis statement

- Should reflect the nature of writing
- Should be specific, but of general nature that needs substantiation
- The thesis statement is usually placed at the end of the first (introductory) paragraph
- The topic statement (for the paragraph) should be placed at the beginning of the paragraph
- The topic may change as writing progress; therefore, revise the thesis so that it reflects topic changes.

Examples of Thesis Statements for Analytical Topic
Analysis of the admission process reveals two principal problems facing those who select students: should they select those of high grades or those of good overall extracurricular skills.
The admission procession should favor both academic and extracurricular skills.

Examples of Thesis Statements for Explanatory Topic

- The life of normal college student balances between study, attending classes and participating in social work.
- University students should take a year off to pursue community work before graduation.

Not all papers require thesis statements!

A thesis statement is a strong statement that you can prove with evidence. It is not a simple statement of fact. A thesis statement should be the product of your own critical thinking *after* you have done some research. Your thesis statement will be the main idea of your entire project. It can also be thought of as the *angle* or *point of view* from which you present your material.

A thesis statement is one of the greatest unifying aspects of a paper. It should act as mortar, holding together the various bricks of a paper, summarizing the main point of the paper "in a nutshell," and pointing toward the paper's development. Often a thesis statement will be expressed in a sentence or two.

D. Key Characteristics of a Thesis Statement

- Is **focused** and **specific** enough to be "proven" within the boundaries of your paper.
- Is generally located **near the end of the introduction**; sometimes, in a long paper, the thesis will be expressed in several sentences or in an entire paragraph.

The key difference between an opinion statement and thesis statement is that a thesis conveys to the reader that the claim being offered has been thoroughly explored and is defendable by evidence. It should answers the "what" question the "why" question.

D.1 When do I write it?

You will develop a thesis statement about your research topic *after* you have written a Statement of Purpose and done some actual research into the topic. You will then present your thesis statement in your introduction, prove it with evidence in the body of your paper, project, or presentation, and finally restate it along with a summary of your evidence in your conclusion.

1. Thesis statements must make a claim or argument. They are not statements of fact.

Statement of fact: *"The ability to afford television advertising for a product can have an impact on the outcome of its sales. "* This is essentially an indisputable point and therefore, not a thesis statement.

Similarly, the claim *"Any board of director of an organization is required for established to promote negotiation between shareholders."* is not likely to inspire much debate.

2. Thesis statements are not merely opinion statements.

Statement of opinion: *"Sales are simply the result of price of the commodity."* This statement does make a claim, but in this format it is too much of an opinion and not enough of an argument.

Similarly, *"The board of director is incapable of taking any decision"* is closer to a thesis statement than the factual statement above because it raises a point that is debatable. But in this format, it doesn't offer the reader much information; it sounds like the author is simply stating a viewpoint that may or may not be substantiated by evidence.

Mapping:
The thesis statement can help "map" a paper as it suggests an order or direction for the paper's development. A thesis statement, for example, might read:

The speech exaggerates the material expectations facing graduates in our society today.

The following sentence could continue:

Those expectations include managing daily needs, maintaining a career, and having a good role in the community.

In this example, the thesis statement suggests an obvious path for development in "life expectations." The writer develops the paragraph by exploring the term "life expectations." Three following paragraphs, for example, would logically discuss 1) daily responsibilities, 2) careers, and 3) societal relationships.

Revise the thesis statement to show the how's and why's. It can take more than a single sentence to make its point in order to give a reason why or how we can accept the thesis statement. This type of thesis serves another useful purpose: the writer can check the body of the paper against it, since it promises a reader what will follow. If the body contains other information, such as other major reasons for the difference sited, then the thesis may need to be revised to include it.

D.2 How long does it need to be?

A thesis statement focuses your ideas into one or two sentences. It should present the topic that you are presenting in the paper and also a comment about your position in relation to the topic. Your thesis statement will tell your reader what the paper is about and it will also help you guide your writing and keep your argument focused.

D4. Some Other Characteristics

- Thesis statement is the central argument for an essay.
- It must be concise and well written.
- It is placed in the introductory paragraph. Make it clearly asserted at the beginning of your paper.
- Effective theses must make an argument. It is the road map to the argument you will subsequently develop in your paper.

How To Write a Good Thesis Statement

Steps for writing the thesis statement

1. Write out the main idea from your paper (the point you want the reader to get) in 25 or fewer words

Now answer these questions: What questions the reader raises if he reads the idea? How can I answer that question? Then focus on a smaller version of the thesis.

Sum up the main idea of the paper in a nutshell. See if you can reduce to a sentence or two the main idea that you wrote in 1.

What "key or code words" does the draft of my thesis statement contain? Are these words adequately explained?

As I review your paper, have you enough supported the thesis, or digressed? Where? How?

D.5 Questions to Ask When Formulating Your Thesis

Where is your thesis statement?
You should provide a thesis early in your essay -- paragraph #1, or in longer essays paragraph #2 -- in order to establish your position and give your reader a sense of direction.

Tip: in order to write a successful thesis statement:
Avoid burying a great thesis statement in the middle of a paragraph or late in the paper.
Be as clear and as specific as possible in your thesis statement; avoid vague words.
It should indicate the point of your paper but avoid something like “The point of my paper is…”

Is your thesis statement specific?
Your thesis statement should be as clear and specific as possible. Normally you will keep on refining your thesis as you revise your argument(s), so your thesis will evolve and gain definition as you obtain a better sense of where your argument is taking you.

Tip: Check your thesis:
Are there two large statements connected loosely by a coordinate conjunction (and, but, or, for, nor, so, yet)?
Would a subordinate conjunction help (through, although, because, since) to signal a relationship between the two sentences?
Or do the two statement imply a fuzzy unfocused thesis?
If so, settle on one single focus and then proceed with further development.

Is your thesis statement too general?
Your thesis should be limited to what can be accomplished in the specified number of pages. Shape your topic so that you can get straight to the "meat" of it. Being specific in your paper will be much more successful than writing about general things that do not say much. Don’t settle for three pages of just skimming the surface.

The opposite of a focused, narrow, crisp thesis is a broad, sprawling, superficial thesis. Compare this original thesis (too general) with three possible revisions (more focused, each of them presenting a different approach to the same topic):

Original thesis:
There are serious objections to today's horror movies.

Revised theses:
Because modern cinematic techniques have allowed filmmakers to get more graphic, horror flicks have desensitized young viewers to violence.
Some pornographic violence movies degrades both men and women.
Today violent movies fail to deliver the emotional catharsis old horror films did.

Is your thesis statement clear?
Your thesis statement is no exception to your writing: it needs to be as clear as possible. By being as clear as possible in your thesis statement, you will make sure that your reader understands exactly what you mean.

Tip: in order to be as clear as possible in your writing:
If you write to a non specialist, avoid technical language. Always avoid jargon, unless you are confident you audience will be familiar with it.
Avoid vague words. Words such as "interesting," "negative," "exciting," "unusual," and "difficult, " "society," "values," or "culture" may be vague or not specific.

Sometimes, these words tell the reader next to nothing if you do not carefully explain what you mean by them. Never assume that the meaning of a sentence is obvious. Check to see if you need to define your terms ("socialism," "conventional," "commercialism," "society"), and then decide on the most appropriate place to do so. Do not assume, for example, that you have the same understanding of what "society" means as your reader. To avoid misunderstandings, be as specific as possible.

D.6 How do I get a thesis?

A thesis is the result of a lengthy thinking process. Formulating a thesis is not the first thing you do after reading an essay assignment. Before you develop an argument on any topic, you have to collect and organize evidence, look for possible relationships between known facts (such as surprising contrasts or similarities), and think about the significance of these relationships. Once you do this thinking, you will probably have a "working thesis," a basic or main idea, an argument that you think you can support with evidence but that may need adjustment along the way.

Writers use all kinds of techniques to stimulate their thinking and to help them clarify relationships or comprehend the broader significance of a topic and arrive at a thesis statement. For more ideas on how to get started, Use brainstorming, or other techniques for discovering ideas..

1. Identify a topic

Your topic is the subject about which you will write. Your assignment may suggest several ways of looking at a topic; or it may name a fairly general concept that you will explore or analyze in your paper.

- Consider what your assignment asks you to do
- Inform yourself about your topic
- Focus on one aspect of your topic
- Ask yourself whether your topic is worthy of your efforts

How to generate a topic from assignments?

As you work on your thesis, remember to **keep the rest of your paper in mind at all times**. Sometimes your thesis needs to evolve as you develop new insights, find new evidence, or take a different approach to your topic.

2. Derive the main point of the topic

Once you have a topic, you will have to decide what the main point of your paper will be. This point, the "controlling idea," becomes the core of your argument (thesis statement) and it is the unifying idea to which you will relate all your sub-theses. You can then turn this "controlling idea" into a purpose statement about what you intend to do in your paper.

- **Look for patterns in your evidence**
- **Compose a purpose statement**

As you work on your thesis, remember to **keep the rest of your paper in mind at all times**. Sometimes your thesis needs to evolve as you develop new insights, find new evidence, or take a different approach to your topic.

3. Compose a draft thesis statement

If you are writing a paper that will have an argumentative thesis and are having trouble getting started, the techniques in the table below may help you develop a temporary or "working" thesis statement.

Technique of Writing

1. Purpose statement

Purpose Statement: This paper briefly sketches the history of …….. and analyzes how it influenced the economic and social ideologies of the two mainstream parties.

2. Question-to-Assertion

Assignment: What do company have to be proud of? Why aren't they satisfied with these things? How does pride lead to unexpected problems?

Beginning thesis statement: *Company* is proud of their great knowledge; however, they are also very greedy and are driven to use their knowledge to alter some aspect of nature as a test of their ability.

3. Main idea
A sentence that summarizes the main idea of the essay you plan to write: The reason some toys succeed in the market is that they appeal to the consumers' sense of the ridiculous and their basic desire to laugh at themselves.
4. List ideas

Make a list of the ideas that you want to include; consider the ideas and try to group them.

A. nature = peaceful
B. war materiel = violent (competes with A?)
C. need for time and space to mourn the dead
D. war is inescapable (competes with C?)
5. Adopt a formula, a pattern, a mold
Use a formula to arrive at a working thesis statement (you will revise this later).
A. Although most readers of _____ have argued that _____, closer examination shows that _____.
B. _____ uses _____ and _____ to prove that _____.
C. Phenomenon X is a result of the combination of _____, _____, and _____.
4. Refine and polish the thesis statement

To get to your final thesis, you'll need to refine your draft thesis so that it's **specific** and **arguable**.

- **Ask if your draft thesis addresses the assignment**
- **Question each part of your draft thesis**
- **Clarify vague phrases and assertions**
- **Investigate alternatives to your draft thesis**

D 7. How to Generate a Thesis Statement if the Topic is Assigned.

Almost all assignments, no matter how complicated, can be reduced to a single question. Your first step, then, is to distill the assignment into a specific question. For example, if your assignment is "Write a report to the local school board explaining the potential benefits of using computers in a fourth-grade class," turn the request into a question like "What are the potential benefits of using computers in a fourth-grade class?" After you've chosen the question your essay will answer, compose one or two complete sentences answering that question.

Q: "What are the potential benefits of using computers in a fourth-grade class?"

A: "The potential benefits of using computers in a fourth-grade class are . . . ."

OR

A: "Using computers in a fourth-grade class promises to improve . . . ."

The answer to the question is the thesis statement for the essay.

How to Generate a Thesis Statement if the Topic is Not Assigned.

Given the topic
Busy readers
How they read
How to write for them
Brainstorm the topic
You start out with a thesis statement like this:

Busy readers

This fragment isn't a thesis statement. Instead, it simply indicates a general subject. Furthermore, your reader doesn't know what you want to say about busy readers.

Narrow the topic

Your collected ideas about the topic; however, these have led you to the conclusion that not only do these readers have a little time, but the time available for reading does not allow them to digest the material they read.

You change your thesis to look like this:

How busy readers read?

This fragment not only announces your subject, but it focuses on one main idea: "How." Furthermore, it raises a subject upon which reasonable people could disagree, because while most people might agree that something needs to be done for these readers, not everyone would agree on what should be done or who should do it. You should note that this fragment is not a thesis statement because your reader doesn't know your conclusions on the topic.

Take a position on the topic.
After reflecting on the topic a little while longer, you decide that what you really want to say about this topic is

Unlike the academic readers such as students or faculty, busy readers – managers or professionals -- read selectively.

Notice how the thesis answers the question, "Why should anything be done for these busy readers? How do they read? What to do for satisfying their requirements?

D 8. How to Tell a Strong Thesis Sentence from a Weak One.

1. A strong thesis takes some sort of stand.

Remember that your thesis needs to show your conclusions about a subject.

2. A strong thesis justifies discussion.

Your thesis should indicate the point of the discussion.

3. A strong thesis expresses one main idea.

Readers need to be able to see that your paper has one main point.

Because the Internet is filled with tremendous marketing potential, companies should exploit this potential by using web pages that offer both advertising, useful information, and customer support.

This is a strong thesis because it shows that the two ideas are related. Hint: a great many clear and engaging thesis statements contain words like "because," "since," "so," "although," "unless," and "however."

4. A strong thesis statement is specific.

A thesis statement should show exactly what your paper will be about, and will help you keep your paper to a manageable topic. For example, if you write a paper on hunger, you might say:

Hunger persists in some countries of Africa because jobs are scarce and farming in the infertile soil is rarely profitable.

This is an arguable strong thesis because it narrows the subject to a more specific and manageable topic, and it also identifies the specific causes for the existence of hunger.

How do I write it?

- Produce a statement of purpose
- Look at your Statement of Purpose
- Look at the kinds of information you have been finding while taking notes.
- Decide what kind of statement you have enough evidence to prove.
  (Be sure that you have done enough research to make a strong argument. Be proactive, consider that you will be challenged.
- Write that statement as your thesis statement.

There are many ways to approach writing a thesis statement.

Just make sure that it is not simple a fact and that you can support it with good evidence from *reliable* sources.

Here are some ways to approach it:

- Define a problem and state your opinion about it
- Discuss the current state of an issue or problem and predict how it might resolve
- Put forth a possible solution to a problem
- Look at an issue/topic from a new, interesting perspective
- Theorize how the world might be different today if something had/had not happened in the past

- Compare two or more of something similar and give your rating about them (cars, authors, computers, colleges, books)

Put out your ideas about how something was influenced to be the way it is or was (music, art, political leadership, genocide)

Sample Thesis Statement

Compare the original thesis (not specific and clear enough) with the revised version (much more specific and clear):

Original thesis: Although wolfs are generally a timid and gentle animal, it is being systematically exterminated. [do you think about certain words that will raise questions and you need to support: if it's so timid and gentle -- why is it being exterminated?]

Revised thesis: Although the wolf is actually a timid and gentle animal, it is being systematically exterminated because people wrongfully believe it to be a fierce and cold-blooded killer.

Does your thesis include a comment about your position on the issue at stake?

The thesis statement should do more than merely announce the topic; it must reveal what position you will take in relation to that topic, how you plan to analyze/evaluate the subject or the issue. In short, instead of merely stating a general fact or resorting to a simplistic pro/con statement, you must decide what it is you have to say.

Tips: Avoid merely announcing the topic; your original and specific "angle" should be clear. In this way you will tell your reader why your take on the issue matters.

Original thesis: In this paper, I will discuss the relationship between fairy tales and early childhood.

Revised thesis: Not just empty stories for kids, fairy tales shed light on the psychology of young children.

Avoid making universal or pro/con judgments that oversimplify complex issues.

Original thesis: We must save the whales.

Revised thesis: Because our planet's health may depend upon biological diversity, we should save the whales.

When you make a (subjective) judgment call, specify and justify your reasoning. "Just because" is not a good reason for an argument.

Original thesis: Socialism is the best form of government for Burkina Faso.

Revised thesis: If the government takes over industry in Burkina Faso, the industry will become more efficient.

Avoid merely reporting a fact. Say more than what is already proven fact. Go further with your ideas. Otherwise… why would your point matter?

Do not expect to come up with a fully formulated thesis statement before you have finished writing the paper. The thesis will inevitably change as you revise and develop your ideas—and that is ok! Start with a tentative thesis and revise as your paper develops.

Is your thesis statement original?
Avoid, avoid, avoid generic arguments and formula statements. They work well to get a rough draft started, but will easily bore a reader. Keep revising until the thesis reflects your real ideas.

Tip: the point you make in the paper should matter:
Be prepared to answer "So what?" about your thesis statement.
Be prepared to explain why the point you are making is worthy of a paper. Why should the reader read it?

Compare the following:

Original thesis:
There are advantages and disadvantages to using statistics. (a fill-in-the-blank formula)

Revised theses:

- Careful manipulation of data allows a researcher to use statistics to support any claim she desires.
  In order to ensure accurate reporting, journalists must understand the real significance of the statistics they report.
- Because advertisers consciously and unconsciously manipulate data, every consumer should learn how to evaluate statistical claims.
- Avoid formula and generic words. Search for concrete subjects and active verbs, revising as many "to be" verbs as possible. A few suggestions below show how specific word choice sharpens and clarifies your meaning.

Original: "Society is..." [who is this "society" and what exactly are they doing?]
Revised: men and women will learn how to..., writers can generate..., television addicts may chip away at..., educators must decide..., taxpayers and legislators alike can help fix. . .

Original: "the media"
Revised: the new breed of television reporters, advertisers, hard-hitting print journalists, horror flicks, TV movies of the week, sitcoms, national public radio, …. .

Original: "is, are, was, to be" or "to do, to make"
Revised: any great action verb you can concoct: to generate, to demolish, to batter, to revolt, to discover, to flip, to signify, to endure....

Use your own words in thesis statements; avoid quoting. Crafting an original, insightful, and memorable thesis makes a distinct impression on a reader. You will lose credibility as a writer if you become only a mouthpiece or a copyist; you will gain credibility by grabbing the reader with your own ideas and words.

A well-crafted thesis statement reflects well-crafted ideas. It signals a writer who has intelligence, commitment, and enthusiasm.

Steps 1. Ask
Thesis-in-transition The phenomenon of xxxx is an interesting symbol of culture, and these facilities demonstrate significant characteristics of our society.
Explanation: This statement does not fulfill the assignment because it does not require the reader to think critically about society.
Refining Steps 2. Question
Thesis-in-transition: xxx are an interesting symbol of culture because they represent significant creativity and business ingenuity.

Explanation: This statement is more precise in that it identifies two characteristics that drive-ins appear to symbolize: creativity and ingenuity. But this assertion also seems to be one that few would argue with.

Refining Steps 3. Clarify

Thesis-in-transition : Among the types of xxx familiar during the twentieth century, xxx best represent creativity, not merely because they were the forerunner of later xxx, but because of their impact on our culture: they changed our relationship, changed the way people experienced movies, and changed movie-going into a family activity.

Refining Steps 4a. Investigate

Thesis-in-transition: While xxx such as those at xxx establishments, banks, pharmacies, and dry cleaners symbolize economic ingenuity, they also have affected our personal standards.

Explanation: This statement introduces a new idea, and it is the first statement that is arguable to some extent. The new information is that xxxx were forerunners of later developments and that they had an impact on our culture.

Refining Steps 4b.

Thesis-in-transition: While xxx such as those at fast- food restaurants, banks, pharmacies, and dry cleaners symbolize 1) business ingenuity, they also have contributed (2) to an increasing homogenization of our culture, (3) a willingness to depersonalize relationships with others, and (4) a tendency to sacrifice quality for convenience.

Explanation: This statement is now specific and fulfills all parts of the assignment. This version, like any good thesis, is not self-evident; its points, 1-4, will have to be proven with evidence in the body of the paper. The numbers in this statement indicate the order in which the points will be presented. Depending on the length of the paper, there could be one paragraph for each numbered item or there could be blocks of paragraph for even pages for each one.

Step 5 Complete the final thesis statement

Discovering Ideas

***The Grid* (for things)**

*Criteri*a	Static (space)	Dynamic (time)	System (partition)
Class			
Contrast			
Context			

Apply the grid on one of the following drilling topics:

1. **Oil base mud**
2. **Cable tool drilling**
3. **Portable rigs**
4. **Offshore jack ups**
5. **Slush pumps**

***The Pentad* (for Actions)**

As its name indicates, it has five components:

1. Action
2. Subject

3. Scene
4. Agency
5. Ratios: Purpose, Object, Circumference, Attitude, Evidence, Questions

Use the pentad to explain a drill string failure.

Topic Questions:

To stimulate ideas, ask questions**:**

Where
When
Why
Who
What
Whom, whence, which, do (...), have (...), can (...), ...?

The Topic

a. Define using classification, composition, exclusion, restriction, description, distinction, analysis of object, or comparison.
b. Compare: Show quantitative and/or qualitative similarity, contrast, analogy, correlation, identity, parallelism, resemblance, homogeneity
c. Show Relationships: cause/effect, condition/ result, antecedence/ consequence, agreement/ contrast, dependence/independence, affinity, repulsion, relevance, correspondence, association, alliance, ...
d. Show Circumstances: possible, impossible, difficult, past, present, future, critical, easy, ...
e. Give Evidences and type: Evidences of authority, of testimonial, of consensus, of statistics, of maxims and proverbs, of law, of precedence, of earning, of fact, of usage or convention or customary.

Brainstorming

To help encourage active participation, brainstorming, is a tool that is used to create as many ideas in a short time as possible. It aids teams/ individuals to include all dimensions of a problem or solution. Brainstorming can be structured (each one has his turn in a specified pattern) or unstructured (no order agreed upon, each one give ideas as they come to mind). A variation is “brainwriting” -- where people come to a meeting with some ideas already written down to be shared. It is best to choose the style most comfortable for the team/individuals.

This process is used :

- When many ideas are requested/required to address a problem or a solution

- When quantity is emphasized
- When mixed or varied groups are gathering to formulate ideas
- When creativity is required to solve a problem

Rules for Brainstorming

- Never criticize ideas. Criticizing the quality of ideas should be left at a later stage; when ideas are narrowed down or grouped.
- Only ask for clarification (what is meant by that? How can we rephrase this in a better way?).
- Write every idea down in a board or a flip chart to be seen by every one during the session.
- The group should look first for the quantity number not quality of ideas
- Every one should be encouraged to participate, encourage even wild ideas
- Follow meeting ground rules.

What To Do With the Results of Brainstorming?

1. **Clarify issues collected from the barnstorming session**: Make sure that each idea is clear. It is better to ask clarification from the originator of the idea during the brainstorming session, or after -- if possible.
2. **Narrow down ideas**: group related thoughts. Break down ideas into major categories.
3. **Prioritize grouped ideas**: rank these in order of importance, urgency. Look for the root issues: issues that condition the bulk of what you are looking for.
4. **For each major issue define the desired outcome**: What you need to have in order to accomplish the task.
5. **Prepare action plans** and details for each grouped issue to reach the desired outcome.

General Note:

Be sure that you deal with one idea, or one topic (may include several ideas, sub-ideas). One paragraph deals with one idea; one sentence should have one idea derived from the topic sentence of the paragraph. Too much details confuses. You should know where to stop and when your writing is enough.

Outlining

- is representing ideas in general terms
- helps remember major ideas
- helps organize thoughts and writing plans.
- saves writer's time
- imposes control to serve the objective

Types of Outlines

Sentence outline (SO): In sentence outline (SO), each idea is a complete sentence.

- SO formulates clear ideas.
- SO remains clear if left for a long time.
- SO may become cumbersome.

Topic outline (TO): ideas expressed using phrases:

- Advantages: shortness
- Disadvantages: lack of clarity, sometimes.

A mixed outlining is used: *major* topics are expressed in sentence outline; *minor* topics are expressed in topic outline.

Exercise

Select a piece of text
Do a reverse-outline for it.
Practice both topic and sentence outline

Write an essay on the pros and cons of each of the two ways of outlining. Use tools for discovering ideas to generate thoughts.

Organizing

Follows 3 orders: natural / logical / psychological

1. Natural Orders:

- time and spatial.

Maybe imposed on the writer by the subject

2. Logical Orders:

- Climactic Order
- General-to-Specific Order
- Specific-to-General
- Cause-to-Effect, Condition-Result
- Other ways: familiarity, complexity, usefulness, utility

3. Psychological Orders:

- to satisfy the reader, or
- to produce emotional reactions
- examples: acceptability, dominant impression

Found more in advertisements than technical writing.

Organizing Information in Scientific Reports

- **Ascending Emphasis**: importance increases as reading advances.
- **Reverse Climax**: The most important ideas are placed at the beginning.
- **Mixed**: summary/introduction/the body/and conclusions
  The summary is sometimes placed at the beginning. It is mainly a descriptive summary, if it is integrated with the text of the article. Is used in the JPT and many other scientific publications.

Select a piece of text . Analyze the way this piece is organized

Some Ways To Begin

If you wish to improve your ways to start your technical writings, you should study the following kinds and choose the best one for your subject.

1. SUMMARY

The summary beginning takes several forms: a) a brief statement of the main idea, b) a digest of part or the whole of the report: an abridgement of the results, conclusions or recommendations, or a summary of the whole text.

EXAMPLES:

1) "As a method of prevention, the cathodic-protection method offers several advantages over the other methods."

2) Another example is the beginning of this subject (Some Ways to Begin).

3) " The instrument presented in this paper measures the total enthalpy content of high-energy, high-temperature gas streams."

4) "Decreasing water content of the feed results in a corresponding decrease in acid consumption for hydrofluoric acid consumption. Lower corrosion rates and less polymer formation are additional benefits.

2. SCOPE

"The following concerns introductory statements of scope. The discussions concludes with the advantages of this beginning and a caution about using it" is an example of a scope-beginning. Scope-beginning is a statement of the limitation of the subject or of the amount of details to be presented.

EXAMPLES:

1) "At your request, three computers of the X corporation have been surveyed (a) for price, (b) for prompt availability, and (c) for adaptability for Company's operations. The results of this study are shown hereunder."

2) "Aiming to remedy shortage of storage sites, we present this report to prove the feasibility of liquefying the gas and then storing it under ground in concrete tanks."

An introductory statement of scope is most useful when the reader might expect a different scope or amount of details. If the scope is simple enough to be presented in the form of a title without being burdensome, it is better to define it in the title. In such cases the reader should avoid the unnecessary repetition when the scope is defined in both the title and the introduction.

3. POINT OF VIEW

An initial statement of point of view (position of the writer towards a certain topic). A warning given early to the reader may be necessary or helpful to the reader or likely to arouse his attention. The writer must judge this way of beginning very cautiously however; the initial statement of point of view may antagonize the reader who may stop reading after the first sentence or may read only to disagree.

EXAMPLES:

1) This is one more vote against GCE.

2) Every thing is wrong with the administrator's proposal on overtime pay - in principle and practice. (A severe statement).

3) Engineers should write their own reports, and therefore should study how to write these reports.

4. SPECIFIC DETAILS

"A hyphen omitted from an instruction caused the failure of a series of rockets." Statements of specific details like this arouse attention and please readers. Starting with specific details, like the example above, is a technique overlooked by technical writers. When used effectively, it will not only draw the reader's attentions, but also add the good impression of a fresh and imaginative approach.

EXAMPLES:

1) Products that are developed for the space programs are providing power for a phone system in South America and an emergency call system in an oil company in the Western Desert.

2) Statistics show that 70 percent of Cairo car drivers drive 15 kilometers or less per day.

3) "Ingress" and "egress" are law-words excluded out of most of the common dictionaries; these two words are not omitted in the new paperback edition of Longman's Dictionary of Contemporary English."

5. STATEMENT OF PURPOSE

To acquaint readers quickly with the purpose of the work, the writer may begin with a purpose-statement. You, as a writer, have to apply this technique whenever it is appropriate: it is appropriate in the first report (or proposal) of a series of progress reports. It may not be appropriate to state the purpose in the final report when it became known to almost every body.

Beginning with purpose statement is probably one of the most used by technical writers. When effectively used, purpose statement has pertinence and interest.

6. STATEMENT OF PLAN OF DEVELOPMENT

This statement describes the organizational plan of the report. It is used from the start to show the extent of the subject.

EXAMPLE: "This is a progress report on an experimental and theoretical investigation of the drag and flow characteristics of a cylinder rotating in a liquid with a lubricating gas over its [the cylinder] surface. A theoretical solution for purely laminar flow of both components is derived from the Navier-Stokes equation. Photographs of the two-phase flow patterns and experimental data of the reduction with air injection in water, alcohol, and glycerine are presented...."

7. STATEMENT OF PROBLEM

Before starting writing, the writer has the definition of the topic he wants to write on ready and well digested. Beginning with the statement of the problem, besides being a logical step, leads easily into the next steps of the paper.

EXAMPLE: "One of the most difficult problems facing the drilling engineer in an imperfect world is how to get reliable information from the multitude of data that accumulate while drilling formations that they cannot see. MWD is an important step towards easing this burden. ..."

Statement of the problem, if the problem is already known to the reader, does not serve the purpose. If so, giving specific details or summary of results is the technique that can make a statement of the problem salient.

8. BACKGROUND

Presenting background is the traditional way of beginning a paper on science and technology. Beginning with what has been done in the last hundred years could be boring. A reader usually wishes to know not what has been done, but what has not been reported.

EXAMPLES:

1) There is very limited information available in the literature about sub cooled nucleate boiling of mixtures. The results of the known studies are summarized in Table 1.

2) Previous studies of the heat transfer from a solid surface to a fluid near its critical temperature and pressure indicate unusual heat transfer coefficients which have not been satisfactorily explained. ... 3) Six months ago, in a move to reduce the flight cost, Golden-Air introduced inter continental one-class flights. Last week, the company celebrated this successful introduction by awarding its 100,000-ths passenger a life-time ticket.

9. QUOTATION

" Next to the originator of a good science is the first quoter of it. By necessity, by proclivity, and by delight, we all quote." Emerson - H.J. Tishy in Effective Writing, 1966

Beginning with quotation is effective only if you make use of an appropriate, apt quotation. If you do not have an apt quotation, do not start with a dull one, but choose another way of beginning. It may be difficult for a nonnative writer in English to have effective quotations.

EXAMPLES:

1) The beginning of this part on quotation.

2) "Trade traditionally follows the flag, but in the new Europe, the order is reversed."

10. QUESTION

What easier way to begin a paper than by a question? Then structure the development around the answer of this question. But do not delay the answer too long; an eager reader does not want to wait long for an answer.

EXAMPLES:

1) What is the future of the electric car? The answer is not yet definite, but there are recent evidences that we will not wait long for that time to come.

2) Why should most of engineers dislike having to prepare a paper for publication? Because it is hard to write things clearly on paper, especially technical materials. Writing is not a natural process.

11. COMPARISON-CONTRAST

By showing resemblance or contrast between his subject and some other subjects well known to the reader, the writer vivifies his subject and enlivens his topic. The comparison (or the contrast) may move from the familiar to the less familiar, an order

that makes the reader comfortable with the unfamiliar. If you start with comparison put the familiar points first. Also contrast is used the same way; here too, place the familiar first.

EXAMPLES:

1) Next month, Cairo will have a business conference that will be the equivalent to a United Nation's General Assembly.

2) While to most people nuclear radiation is a harbinger of death and destruction, to small group of botanists it is a promising new tool. These men are using it to breed new and better food plants.

12. DEFINITION AND CLASSIFICATION

"Fluid-Energy milling is a method of reducing solids to powders of very small particle size" is an example of beginning that uses definition. Definition is commonly used in beginning technical writing. Another common, and similar, way of beginning is classification: "Most disease-producing bacteria can be divided into two classes: ...."

13. ILLUSTRATION AND EXAMPLE

"Embrittlement failure of molibdinum furnace tubes were unheard of until a 1.5" line in a thermal cracking unit ruptured in 1960 ... ."

14. ACTION

If the writer of science and technology is willing to give his report the style of story, the action beginning is a good choice. In this way, events are given a vivid tone close to the journalistic style of narrating accidents and actions. This type of beginning is easy to read. If the style and the writing are good, the reader will not notice the transition between the story and the thoughts. However this beginning takes more space than a summary does.

EXAMPLE: "I vividly remember being confronted as a student with the stress-strain curves of metals beyond their elastic limit. My reaction to endless curves with various kinks and bends was completely and utterly negative. Yet few years later, these very same curves took on a new meaning; they became alive and fascinating."

15. FORECAST AND HYPOTHESIS

Hypothesis/Forecast beginnings stimulate imagination. This beginning is restricted to imaginative, more experienced writers with solid industrial or scientific experience.

EXAMPLES: "Sufficient evidences indicate that the oil consumption in the industrialized countries during the coming decade will increase gradually, therefore oil prices will likely to follow this trend. The OPEC position as the biggest producer will be as salient as it was in the seventies and early eighties ...."

16. COMBINATIONS

Writers often use a mixture of these beginnings. This is even easier than limiting the beginning to one way only. Some of the beginnings can be easily combined together. For example, a question may start the text and a long answer based on definition can follow. However, one kind of beginning dominates the combination.

Study the ways to begin paragraphs in sample of text; Select a way to develop; then define Ways To Begin compatible with it

The Introduction and the Conclusion

A. Introduction: The opening has three major functions: (1) it announces the topic, defines the problem, its history, and its background, (2) it captures reader's interest by placing the subject in an interesting context, (3) presents the thesis statement, and (4) presents the contents of the text. One way of writing is to limit it to the introduction of the topic and prepares for the thesis statement that terminates the paragraph. This technique for beginning is called funnel arrangement in which the writer starts with a wide a general statement then narrows down to the thesis statement.

Another way of writing the opening is to start, right from the beginning, with the thesis statement, then to develop it immediately. In this case the other sentences of the opening paragraph are often used as topic sentences of the body paragraphs of the text.

Examples of Opening Statements

1. If you still subscribe to the theory that writing is for English teachers, read on. You can, and perhaps should improve your writing.
2. English for Science and Technology: A Handbook for Nonnative Speakers" is a technical writing textbook for engineering and science students who have a fairly good command of English but are not native speakers. It can also be used as a reference book by professionals working in industry.
3. Some of you may wonder why it is not enough to teach our students how to speak English adequately; won't they then obviously be able to write it? Not necessarily, for writing is not just a "natural" extension of learning to speak a language. We learned to speak our first language at home without systematic instruction, whereas most of us had to be taught in school how to write that same language. Many adult native speakers of a language find writing difficult. The two processes, speaking and writing, are not identical.

B. The Closing (End): The closing may include one or more of the following ways:

(1) restates, but in different ways, the thesis statement and the major conclusion(s) of the text;
(2) discusses the significance and the implications of the assertions made in the thesis statement and the text. For example, it makes predication, recommendations, or announcement steps relative to the main conclusions of the text.
(3) calls to actions, approval, endorsement, or announcement.

As a first cautionary note, do not introduce any new information in the closing. All important ideas should have been discussed in the body of the text. The conclusion should not lead the reader into a new direction; it should summarize conclusions already discussed within the body.

Another important note is that the writer alone should not rely on modifiers alone (such as "in conclusion", or "to summarize", or "finally") to indicate the conclusion nature, without including the conclusion technique stated above: the content of the conclusion should reflect its conclusive nature by providing conclusive contents.

Examples of closing statements:

1. When we look at just these few differences-and there are many more- we can see that our students will not just "pick up" writing as they learn other skills in ESL classes. We have to teach writing. And that, of course, leads to the next question and the subject of this book. How?
2. To be truly effective in your profession, you must be able to communicate the results of your work. For you to be appreciated, managers must be able to understand what you write. Your writing should be straight-forward and clear.
3. If the sentences are not logically arranged or if they do not connect with each other smoothly, the paragraph is incoherent. Coherence is an important quality of writing.
4. This chapter has been concerned with testing terminology. Categories of tests have been introduced. Finally, a check list was presented for the rating of the adequacy of any given test for any given purpose using ten essential criteria.

Exercises

- **Show the elements of introduction and the elements of conclusion in samples of text.**
- **What are the ways to begin and the ways to develop compatible with the introduction and with conclusion.**

Summaries and Abstracts

An abstract to a formal report is a condensation of the text of the report: it is an objective, abbreviated statement of primary information included in the text. It is written for reports, proposals, articles, dissertations, and scientific articles.
An abstract serves several purposes. It is an extended form of the title; is a shortened, mapped form of the report; and is an aid to the memory (reminds the reader of the content instead of reading it a second time). It is read by everyone who sees the report including busy readers who are not interested in the details, by the specialists who want to know all the details about the subject, and by others (accountants, lawyers, librarians ...) who are interested in the report for different reasons. It gives readers the breadth of the work involved, and whether they should consult the bulk of the work to get further details. Abstracts are sometimes collected in a booklet such as Chemical Abstracts to inform those who are interested of the content of the original paper. They are, therefore, a valuable source of information

about the original version of the report. Professional abstracters are sometimes hired to write abstracts for journals. But to speed the process of publishing, and for accuracy, many organizations and journals rely heavily on the authors of the paper for this task.

The abstract generally duplicates a good part of the letter of transmittal. However the letter of transmittal is different in form and is conversational in tone and cannot replace the abstract; especially if the latter is destined for anonymous reader. To avoid duplication when a letter of transmittal is used for a report with an abstract, the letter should be short about the content of the report and should refer the reader to the abstract.

Certainly a beginner in writing such forms needs to know the types and techniques of writing abstracts. Never use "I" in the abstracts; report your information impersonally as if it was written by someone else. If an abstract with "I" is published separate from the report, the use of "I" will, therefore, not be appropriate.

The most meaningful abstract is a mapped form of the report. It includes one or two sentences as an introduction, few words about the body, the essentials of the conclusions and recommendations. It should include the purpose of the report and its thesis statement.

The following rules of preparing abstracts should be observed

1. The abstract is written after the report is completed.
2. The abstract should be written in formal English; should not contain details, formulas, symbols and abbreviations, and reference to bibliography, unless it is absolutely necessary.
3. The text of an abstract should be coherent. Transitional words, numerical listing and careful grouping of ideas should interrelate one major idea to another.
4. An abstract should be limited to only one page.
5. Consult the rules of formatting abstracts as defined by the publisher, receiver, or the establishment issuing the abstract.

Two forms of abstracts are commonly distinguished: the informative and the descriptive.

1. Informative Abstracts

The informative abstract summarizes the contents of the report: emphasizes what is new; stresses the objectives, the conclusions and recommendations; touches the details very briefly so that the essential message of the report becomes clear and independent. The informative abstract should be independent by itself: it should not be necessary to read the report to understand the meaning of the abstract; reading of the report will be for details on what, how, when, what for ... etc. Moreover, the author neither criticizes nor evaluates the report in the abstract (principle of objectivity).

The length of the informative abstract is proportional to the length of the original form; usually the abstract is from 5 to 10% of the length of the report. For economy of space, journals and publishers limit the abstracts (whether informative or descriptive) to only 200 or 300 words. Most of the professional journals write style books that include some specific details about abstracts. If you are sending an abstract without its report for evaluation of your work (by a journal or a committee) send an informative abstract because it gives more information about the scientific content of the paper.

Examples of Informative Statements:

1. The company has installed a re-circulation unit and a cooler for the water used in the injector inter-condensers. The system will reduce the injector usage by 30% and so offset the need for expansion of the Process Water Facilities.
2. The cost of merchandise has been dependent on the cost of ingredients, cost of labor, availability of raw material, promptness of delivery, and market demands.
3. Foamed polymers and glass-fiber gave resistivity of about 2.7, but those of aluminium foil gave only 1.3.
4. Aging of the foam reduces its thermal resistivity by 7%.
5. It was concluded that college courses do not improve the writing behavior of students.
6. It seems likely that this distinction accounts, in part, for the disproportionately small representation of women today in the professional fields of science and technology.
7. The cause of premature failure of the glass fiber is that the multiple irregular surface within the glass fiber traps more air.

2. Descriptive Abstracts

The descriptive abstract, sometimes called Topical Abstract, simply indicates the topics covered without giving hints about the content (the inside of the report). The descriptive abstract rarely exceeds few sentences regardless of the length of the report. It lists the topics covered without giving support or evidences; it is therefore less useful than an informative abstract. descriptive abstracts are less effective and are the type which the readers-in-a-hurry would read.

Examples of Descriptive Abstracts:

1. This text describes the natures and functions of summaries. The ways the readers use summaries are mentioned briefly. A distinction between descriptive and informative is made, and the advantages and disadvantages are compared. General rules for organizing a summary are given, and the positioning of the summary is investigated.

2. This report is purely introductory; it is intended to give you the broadest possible view of report writing.

3. This report describes the production problems, raw-material supply-difficulties, and changes in the sales pattern which require a reappraisal of the production and packaging plan for phosphates.

Rules of Thumb for All Abstracts:

1. It is best to use numbers instead of approximations (near, approximate, about, ...):

- The tests for our product require modifications to improve its quality.
- BPC specifications for pharmaceutical grade Renclor 406 now restricts impurities to 4.5 ppm instead of 6 ppm. Chlorination test has therefore to be modified to suit these changes.

2. The organization of the abstract may change from that of the paper. Important things should come first, but the interests of the readers are not the same. To write the summary, think about all the facts and ideas in the report you want to write the summary for. Grade these in order of importance to the readership of the summary (not to the readership of the report), and then write them in that order. Give the fact which is most important first then go down the scale of importance towards smaller details. Readers of most summaries need conclusions first; they may not need the details or procedures by which the results were achieved. In this case half of the summary or statements will be conclusions; two to three sentences will be needed to summarize the introduction: a report calling for action should have a summary that puts the recommendations first.
3. Summaries for empirical Reports: one or two sentences to summarize the introduction, few sentences to summarize the method and the results, and the last half states the conclusions.
4. Summaries for Action Reports: Recommendations and actions will be stated first, give the main reasons for these recommendations, then follow with the statements of costs, savings, timing, and more detailed evidence.
5. The length of the report is not what is needed to summarize, but it is needed to tell the readership what they want to know about the report.
6. Place the summary first, and write it last.
7. Use direct, active, and simple sentences in your summaries. Use "International cooperation is important' not "The importance of the international cooperation is emphasized in the report." Do not write "The collapse of the element was for two reasons, of which the first was the increase in the pressure and the second was the increase in the temperature.", but write "the element collapsed for two reasons: the pressure had increased over 1500 psi, and the temperature exceeded 325 degrees."

3. Indicative abstracts

An abstract or summary could be a mixture of the two types; such mixed abstract is called "indicative abstract" by some authors. For technical writing, the informative abstract is always helpful to the technical reader.

Forms of Technical Writing

Basic communication tools that are used to relay information in order to achieve desired ends. The word *form* (or report) can be used to indicate any one of the following:

- curriculum vitas (CV's)
- job descriptions
- memorandums (memoranda)
- telexes
- minutes
- faxes
- letters of applications, requests, complaints, proposals, inquiry, recommendation
- instructions
- proposals, tenders, bids
- reports: informational, action-oriented, progress, final, analytical, troubles-hooting, empirical-research, feasibility
- scientific articles
- theses
- books
- others.

Classification of forms:

- Address limited readers
  - ◊ *Short, long*
  - ◊ *Informative*
  - ◊ may need special parts
- ◊ *Address* unknown mass of readers
- ◊ *solicited, unsolicited*
- ◊ *persuasive*

The physical form (of the report) is influenced by size, content, reader(s), complexity of the subject, and amount of details.

You need to know

- Important features of each form
- Writing rules specific to the form
- Special preplanning and preparation required to have an effective form.

The Curriculum Vita (CV)

(Résumé)

(Personal Data Sheet)

- ♣ **The CV is an abbreviated record of qualifications**
- ♣ **Size of the CV is one to three pages, sometimes more.**
- ♣ **The CV shows qualifications, contains facts.**

Used with other documents:

- **a letter of application**
- **a job application form, or**
- **a request for job.**

General Layout of the Curriculum Vitae (CV)

CV for
Name

Address: Include Postal code for address Business,
Home, Fixed Phone, mobile email ....

Place for photo

Birth Date and Place of Birth:

Social/Marital **Status**:

Religion (optional), Passport Number, Social Security, Health, **Sex**, ...

Present Job:

Academic Record and Education: Title, Date, and Place -- for all records

Employment/Experience/Training **Record**: in chronological order, the present job at the top.

Language Proficiency: Define reading and writing capabilities
Computer Literacy
Membership of Professional Societies:

Extra Curricular Activities

Honors or Awards:
Hobbies:
References:
Additional data that serves the objective

NOTES:

- The CV should be accurate and objective; show facts
- Ask permission to list your reference(s).

–

Personal Data Sheet
(CV)

Name
Sex
Objective(s)

Residence
Telephone
e-mail

Date and Place of Birth
Social Status
Status of Military Services
Present Job
Academic/Educational Record
Employment Record
Experience
Training
Skills
Computer
Languages
Others
Membership of Societies
Honors or Awards
Other Strong Points you would like to add
References

Writing a Job Description

WHY AND HOW?

A job/task description is a list of duties that reflects required skills and responsibilities of a person/team assuming the given job/task. Thus it shows that one job/task is different from another, and therefore distinguishes between categories of work.

The uses to which a job/task description may be put are numerous:

1. The job/task description lists duties that must be performed to accomplish departmental activities.
2. The job/task description is useful in matching the job/task applicants with the duties they are capable of performing.
3. The job/task description is a handy tool when it is time to evaluate performance of individuals/teams.
4. The job/task description defines the limits of efforts, responsibilities, or authorities of individuals/teams or a job/task so that duplication of efforts, authorities, or responsibilities are avoided.
5. The job/task description allows comparison between jobs/tasks to define salary scales, performance, ... etc.
6. Job/task descriptions are used to determine relationships among jobs/tasks and job families.
7. Job/task descriptions serve as the primary tool in a hearing involving a performance evaluation or grievances.
8. Written job/task descriptions allow comparison between old and new ones when it is necessary to document changes or evolution.

Steps before Writing Job/task Descriptions:

1. Gather accurate information about the job/task, its duties, its work location, its responsibilities, its organizational contacts, and its nature.
2. Gather information about the qualities and requirements of who should assume the responsibilities of this job/task. This applies to individuals rather than teams. If you are writing the description for another employee, ask the help of the employee and his immediate supervisor to get a good picture about points (1) and (2).
3. Determine the order of presentation of the data: start with the frequent; write duties sequentially; organize these in order of descending importance.

The following is an outline for job/task descriptions:

1. Position Title: Put down the Official Title as it shows on the Organization Chart of the Company (observe the rules of capitalization).

2. Work Location: Write where the main job/task-functions are exercised.
3. Organizational Relationships: Mention the position titles of whom the employee/team reports to, and those who report to the employee.

4. Functional Relationships: During the exercise of his functions, the employee regularly contacts persons in other departments or divisions that he neither reports to nor does he supervise. Write the position titles of these individuals and their work locations.
5. The Nature and Background of the Job/task: The employee/team does an important job/task, and the others cannot do it for the division without loss of work efficiency. Write the general outlines of the employee's duties to show that they are different from the others: You can put down also the number of persons he/the team supervises or he works with. Specify whether these persons are of same qualifications, highly qualified, or semi-skilled workers. Add important facts about the job/task.
6. Principal Activities: List down the principal duties in order of decreasing importance . Start with regular and continue with the less regular. These duties are related to the position, and to the supervisor and subordinate's work. Use action verbs. All action verbs in the job/task description are written in the present tense for the third-singular-person. Avoid pompous vague words. Do not use I's, we's or he's: the subject "he/team" is omitted from the whole text.

All statements of job/task description and specification should be specific and measurable as much as possible.

Examples of (6) are:

- (He/The team) Performs routine preventive maintenance and makes repairs whenever necessary (this is an I function).
- Replaces defective minor equipment and devices (this is an I function).
- Supervises the repair of the major items when it is done by outsiders (this is an I function).
- Exercises and implements control over the performance of the movement of material (both I and M).
- Audits the activities of different groups to verify conformance to the company guide lines (an E function).
- Trains and develops manpower to help them achieve goals in career development (an M function).
- Manages all operations related to production activities ((this is an P and overall function)
- Negotiates contracts between service companies and the Company to insure coverage of operations ((this is an M function).

A List of Action Verbs

The following are selected action verbs to be used to remember and define tasks. These verbs are classified into four categories so that the tasks of the job/team address total quality requirements: The planning function, the implementation functions and the evaluation and improvement functions. Any job/team tasks shall have some of these TQ process. However, managerial jobs involve more planning, evaluation, controlling and improvement functions. Lower jobs in the hierarchy have more implementation that top management functions. Whether you are writing your own tasks or you are writing these for someone else, the given list can help you remember basic quality tasks. Many of these verbs are for individual tasks, but most can express tasks for teams as well.

	Plan (P)
Assigns	P
Calls for	P
Categorizes, ranks	P
Designs, plans	P
Forecasts, predicts, premises	P
Issues (directives, goals, strategies, policies, budgets)	P
Manages, supervises	P
Plans	P
Acts	**Implement (I)**
Administers	I
Analyses	I
Applies	I
Approves	I
Assists, helps	I
Authorizes, approves, endorses	I
Books	I
Carries out	I
Classifies, ranks, defines	I
Cleans	I
Collects, gathers	I
Communicates, tells, gets in touch with	I
Compiles, collects	I
Conducts, does	I
Consults	I
Delegates	I
Delivers	I
Deposits	I
Determines	I
Develops	I
Distributes	I
Draws, rafts, sketches	I
Edits, reviews, corrects	I
Endorses	I
Enforces	I

Establishes	I
Estimates, forecasts	I
Executes	I
Expedites, implements	I
Files	I
Formulates	I
Groups	I
Handles	I
Initiates	I
Insures	I
Invoices	I
Keeps	I
Lists	I
Looks after	I
Maintains	I
Makes	I
Negotiates	I
Orders	I
Organizes	I
Participates	I
Performs	I
Places	I
Prepares	I
Presents	I
Prints	I
Records	I
Registers	I
Releases	I
Sends	I
Serves	I
Signs	I
Stamps	I
Supervises	I
Supplies	I
Translates	I
Transmits	I
Types	I
Writes	I
Appraises	**Evaluate (E)**
Assesses	E
Audits	E
Controls	E
Coordinates	E
Diagnoses	E
Directs	E
Evaluates	E
Examines	E
Follows up	E
Guides	E
Monitors	E

Observes	E
Rates	E
Researches	E
Reviews	E
Studies	E
Verifies	E
Changes	**Improve (M)**
Counsels	M
Modifies	M
Motivates	M
Promotes	M
Recommends	M
Trains	M

Notes : All verbs above are action verbs in the present tense and third-, singular-person. The use of other verbs, if required, is also possible.

A. Job Description

Date of Last Review: .....

1. Position .....

2. Work Location .....

3. Organizational Relationship
.....
.....

4. Functional Relationship
.....
.....

5. Nature of Job
.....
.....

6. **List of Activities**
.....
.....
.....
.....
.....

B. Skills and Qualification of Occupant

Skills and Competence
.....
.....
.....

Qualifications
.....
.....
.....

Training Path
.....
.....

Related Job/task Family (group of job/tasks with common knowledge and skills, essentially for individual jobs)
.....
.....

General Characteristics of Effective Business Letters

Especially for long letters, have a plan, organize this plan before writing. But before all, define the message, its strong and weak points. Have the proper style to high-light the points of interest, and avoid burying important items among details.

Get to the point immediately: introduce the recipient directly to the subject; tell what your letter is about in the first paragraph. The recipient should not wait too long to know the purpose of writing. Keep your letter short.

Be specific. Distinguish facts from opinions; be honest. Use "You" instead of "I": Have the letter addressed to the reader. Do not tell the reader about yourself: limit the use of the first person to the necessary minimum.

Choose clear words, suitable to carry the meaning without creating negative reactions. Wrong words alienate the recipient. Be courteous and friendly, do not be aggressive.

Close with something simple like "Sincerely," and sign legibly.

Revise your letter carefully, letters are official documents. Have letters revised before sending: sometimes a lawyer's input is necessary for contractual letters. Make your letter perfect: no typographical errors (typos), no misspelling, no factual errors; sloppy letters tells the reader that you do not care.

Suggested Outline:

1. Begin by telling your purpose, and the subject.
2. Give the major conclusions and recommendations, if the reader is not hostile to these. Then follow with explanations. If the reader is hostile, give your supportive facts and substantiate first before giving the general conclusions.
3. Develop the subject. Be brief; Remember S M C R O.
4. Conclude by paraphrasing the conclusions and by asking or calling for action or any other appropriate form.

When a letter gets beyond four or five pages, it is probably too long to be presented in a letter form or memo.

EXERCISE:

Write an unsolicited letter to some oil company asking for 20 gallons of genuine crude oil for your use to run certain laboratory tests. Imagine whatever missing data you need to write a one-page business letter. Apply, whenever possible, the rules discussed in this chapter.

The Letter of Application

The letter of application asks for job and shows how the employer or the company can benefit from the candidate's qualifications. The letter of application may be one of two different kinds: (1) the prospecting letter, (2) the invited letter.

(1) The prospecting Letter:

A prospecting letter is a letter of application written by an applicant who knows the kind of work he wants to do and the company for which he wants to write. However, he does not know whether a position is available, but he specifies that he applies for work, and he hopes to receive a favorable reply. The prospecting letter of application is an example of a persuasive letter.

* Indicate familiarity with the work and the company's organization and requirement.
* Express interest in working for the company; state your reasons for this interest. For this, state that you are willing to relocate or move if work requires.
* Attach a data sheet and refer to it frequently. Show your strong points and your personal traits that distinguish you from the others (the persuasive part).
* End by requesting an interview.

(2) The Invited Letter:

A candidate responding to an advertisement is writing an invited letter.
* Refer to the advertisement. State where and when you knew about the company's need for employees.
* Shoe that you apply for work, and attach your personal data sheet.
* Correlate the information in the personal data sheet with the work requirements as specified in the advertisement.
* Ask for an interview.

The Memorandums

Memorandums are different from letters. They do not contain the salutation parts, nor do they contain the complimentary closing. They need not have the letter head of business letters because they circulate between workers of the same company. Memorandums usually have less formal tone than business letters.

The heading of memorandum forms is printed to fill-in the reader's name and the writer's name, the reference, the date, and the subject. The heading also includes the company name with the mention "Inter-Company Memorandum."

Memorandums should not be too long (otherwise, use a report form). The block form is used but the name, title, and signature are indented to the right.

Name of the sender
Address

Addressee
Address

Date ----------

Sir,

This letter answers your advertisement in ---------- seeking petroleum engineering graduates; I am interested in your job offer. I graduated last July ------- . I decided to join PE (ME) because I believed, and still believe, that it offers interesting and challenging careers.

During my university studies I was --------- . I prefer pursuing a career in your company, although I may receive interesting offers from other companies.

I believe that some of my strong points are that:

- I know **----------** languages: **----------** **.**
- During the last year was able to put my studies into action by preparing a project study on ---------- .
- My several "summer training" taught me teamwork and some multidisciplinary tasks: ---------- .
- I have the following skills: ----------

You find enclosed my résumé. I am very interested in discussing my credentials at your convenience. If this is possible I can be reached at ---------- during ----------.

I am looking forward to hearing from you.

Sincerely,

Signature

Attachment: A two-page Résumé

Technical Reports

Long forms

- **Give more details**
- **Are limited in circulation, and in readers**
- **Are restricted in details and background.**

Types of Reports
Proposals: Proposes a topic.
Progress: Show development of the topic.
Final: Groups results and concludes
Informational: Gives information, facts.
Analytical: Analyzes situations
Action Oriented: Suggests decisions
Feasibility: Defines soundness of projects

I. Organization of Reports

Cover: Shows title, authors, date, ...
Inside Cover
Letter of Transmittal

Table of Contents

***For paginations*. Use**

- Roman numbers upper and lower cases for parts before the introduction
- Arabic numbers for the introduction till the end of the report.

II. Progress Reports

- Checks on progress
- Compels evaluation of the work done
- Is made on regular basis.

The Outline of a progress Report

1. Summary
2. Introduction: Reminds of steps before, and objectives, scope. Presents the contents
3. *The Body*: Shows achievements
4. Ties work done with plans. Presents full results of the phase.
5. *The Ending*: Summarizes progress. Answers questions on timing, cost.
6. Shows relation with past report (s)
7. Refers to plans and future.

Pay attention to the style, and physical appearance; show originalities of the work.

III. Final Reports:

Terminates reporting on a project.

General outline of a final report:

1. Cover Page
2. Title Page
3. Abstract
4. Contents
5. Lists of symbols, tables, and figures
6. *Introduction*: Shows purpose, nature, scope, and history and background of the work. Shows definitions, personnel and organizations behind the study.
7. *Body*: Shows methods, theory, materials, problems, results, discussions, analysis and interpretations.
8. Conclusions
9. Recommendations
10. Acknowledgment
11. *Supplementary Parts*: Appendixes, bibliography

IV. Proposals

Proposals encompass bids, tenders, formal offers, first reports in a research project or studies, ...

Proposals are either *solicited* or *unsolicited*.

The content of the report depends on the purpose of the report: Study a problem, sells equipment, services, support, sells

Outline of A Proposal for Selling Equipment:

1. *Introduction*: Presentation of the subject.

- Definition of the proposal, definitions
- Presentation of the content of the proposal and the overall cost of the proposal, if any.

2. *The Body*: Description, Advantages, Qualifications, Prices involved, Specific and General Terms and Conditions, Proposals for Maintenance.
3. *The Conclusion*: Summarizes the advantages; urges to action

General Outline of a Proposal for Solving a Problem:

Proposals are also for addressing problems

1. Project Summary
2. *Introduction*: Description, definitions, background, need for Solution,
3. *Body*: Details of the solution. Feasibility of the solution, benefits, plan of work, scope, Methods, Task-Time Breakdown, Possibility of Success, Qualification of those who propose the solution ....
4. *Conclusions*: Summary of the Best, Cost, Budget, Call for Action

V. Instruction for Performing a Process

Steps explaining mode of operation

1. *Introduction*: Shows theory of the apparatus, and principles of operation.
2. *Body*: Lists materials and equipment description, mechanism, functions of component. Lists instruction, troubleshooting procedure, minimum maintenance ....
3. *Conclusion*: stresses the quality of the instrument, highlight the importance of adherence to the procedure.
4. *Writing Style*: Clear, Understandable, Imperative voice, Concise Sentences, Arranged Chronologically.

VI. Feasibility Reports

A feasibility report judges the possibility of a given project (technical, commercial, financial, social, ecological ...). The feasibility report helps make decisions.

General Outline of The Feasibility Report

1. *Introduction*: Introduces the subject, purpose, and scope. Presents reasons for the study, persons doing the study, background, limitations, procedures. Previews the report.
2. *Body*: Discusses solutions, evaluations, arguments, comparisons of all the aspects of the project: social, economical, ecological, political, financial; effectiveness, desirability, preferability, technical feasibility, ...
3. *Conclusions*: presents factual summaries; shows the outcome of the study as seen by the author(s); should be oriented towards action or helps decision making.

Writing for Technical Publication: The Scientific Article

- The author writes to inform technical communities of progress and achievements realized.
- The author writes for his advantage, for the advantage of his institution, or for both.
- The Technical article engages the author's responsibility.
- The initiative for writing comes from the author or from the institution
- The article is always backed by other work: experimental or theoretical or research in the literature.
- The article receives wide circulation.
- The technical content of the paper May become the property of the publisher.

Length: Limited in number of pages or words and contains visual aids (tables and illustrations ...)

Form: Varies according to publishers specifications

Paper Organization

The organization of scientific articles is mainly defined by the publisher or the organization publishing the text. However, the following outline is very popular.

Title: is short; attracts attention; should be informative; includes authors' names affiliations, titles and membership of technical societies (if needed).

Abstract (Summary): is limited in number of words; summarizes the objective, results and conclusions.

Introduction: Outlines the problem, mentions the background of the subject, and briefly presents the contents. Gives the reader what he should know before reading the body.

The Body: States the problem and presents definitions.

- ✓ Explains the theory behind the work.
- ✓ Analyses situations considered in the work.
- ✓ Describes equipment and procedures.
- ✓ Presents the data.
- ✓ Shows illustrations.
- ✓ Develops the topic.
- ✓ Interprets and discusses the results.
- ✓ Substantiates the conclusions. .....

The Conclusion: Condenses the results, the conclusions and the recommendations of the work.

Should not show new ideas nor repeat details.

Nomenclatures: Defines symbols and abbreviations in a formal way.

Acknowledgments: Cites and acknowledges help received from individuals or organizations.

References: Show previous work consulted by the author and directly related by to the topic.

Appendixes (Appendices): Contains details that are not necessary for understanding of the body.

Tables and Figure: Groups tables and illustrations if not included in the body or the main text.

Metric Conversion Factors: Lists conversion factors from the basic units of the text to equivalent metrics.

Guidelines for Writing Manuscripts/Scientific Papers

The following guidelines are designed to help authors communicate information in a manuscript for presentation at conferences.

Paper Dimensions, Size and Organization

Use **size A4 sheets**. The maximum length of the article is 15 pages including all tables, figures, photographs bibliographic references and appendices. Use laser or near letter quality printers. Use letter size 12 Time New Roman at single space. Please adhere strictly to these guidelines for the arrangement of your paper: consider the organization of these guidelines as an example of what is needed.

Place the parts of your article in the following order: the text of the paper ending with the conclusion, nomenclatures and subscripts, acknowledgment, references, appendix (designate multiple appendices A, B, etc.), tables, figures, and photographs. Limit the contents of the first page to the title, authors name(s) and affiliations and the condensed abstract: start page two with the introduction.

Use SI metric system whenever possible or use customary units followed by equivalent SI units in Parentheses.

Put page numbers at the top center of each page: start numbering with page two, the bottom center of each page should be left for Conference editorial purpose.

Write on one column per page within a frame of 17 cm x24.5 cm leaving 2.5 cm on each margin of the page. Use the top third of the first page for the title and related information as diagrammatically shown on the next page.

Submit a floppy disc 3.5" IBM PC format using WINWORD, Times New Roman font, size 12, in all parts of the paper (i.e. abstract, key words, main text, acknowledgment, references, list of symbols, figures, table, etc.)

Submit one original (ready for reproduction) and three copies of the final version of your paper as it should show in the proceedings of the conference. The following are guidelines for the layout of the first page and the subsequent pages.

First Page

Lines below top border	Item
0	Top of the page
1	
2	
…	
10	Start title here
16	Put author's name(s) and affiliation(s) here
25	ABSTRACT: Design a 50- word abstract
	End of the first page

Second and Subsequent Pages

0	Top of the page
1	
2	
…	
5	Start the body of the text here starting with INTRODUCTION to the end of the development of the topic. (Major headings within the body are all in uppercase.)
	Leave one inch as bottom margin and side (left/right) margins.
	CONCLUSIONS
	NOMENCLATURE
	ACKNOWLEDGMENT
	REFERENCES: List all references numerically in the order cited in the text. Information should include the following: Reference number; author's last name(s) and initials; title of article between quotation marks; title of book (underlined); publication in which the article appears; (for books only name of editor, publisher and city where published); date of publication; volume and number; inclusive pages.
	APPENDIX(EX): for supporting materials too detailed to be included in the body of the paper.
	TABLES, FIGURES 8 PHOTOGRAPHS: designate tables and figures with Arabic numerals. Provide headings for tables and captions for graphs. Figures must be readable; legends must be legible; and data must be of good quality and of high contrast. Remember that figures may be reduced in size in the proceedings, so be sure that values and legends can be read accurately. Number figures, tables, and photographs consecutively as they appear in the text.
48	End of Page.

Appendix

Graphical Illustrations

Visual Elements: Graphs, Text Charts, Use of White Space
Visual Elements Express Messages as words do, Summarize and/or clarifies ideas
When To Use Visual-Elements?

Where words alone are not efficient.
Where VE help clarify meaning.

How To Select Visual-Aids?

Line Graphs: show continuity
Bar Graphs: show discontinuity, separation
Pie Charts: show relationship between elements
Tables: show details, accuracy, multiple variables
Photographs: show overall appearance, specific details

To be truly visual, visual (-) aids should have a true message.

How To Design Visual Aids?

Write Legends from left to right, bottom to top.
Place the independent variable on the x-axis.
Have things to flow from top to bottom.
Place important things around the center.
Place important things at the foreground.
Give important things thicker type.
Have important areas to contain important information.
Give the same things the same color, size, font, ...
Show contrast by changing size, color, font, ...

Select VE type that suit the idea: make VE clear and relevant.
Do not load VE with legends; have these easy to read and understand.
Avoid distortion due to improper choice of scale or size.
Make the VE as independent as possible.
Integrating Visual Elements in The Text
V E should be tied to the text: explain importance, contents,
limitations; do not only repeat captions; introduce the graph;
give thesis, interpretations, implications.

Formatting Conventions To Facilitate Reading

Use listing techniques.
Use headings, subheadings, titles, sub-titles, underlining, ...
Use variations of font, size, face to indicate divisions or subdivisions.
Number the parts of the text.
Use white space liberally.

Rules for Graphs, and Text Charts

Many of the rules for charts can apply on text charts as well.

For Text Charts and for Texts on Illustrations:

- Avoid putting too many words in one line; the practical limit depends on the size of characters: the maximum may be between 5 and 10 words per line.
- Leave one line blank between fully formatted elements of one series.
- Make the elements of one list parallel: they should be all phrases or clauses; they should start with the same part of speech (such as verb, noun or adjective), and they should all follow the same capitalization and punctuation rules.
- Use enhancements (color, font, size, case) sparingly: using too many enhancements actually detracts from your presentation. Enhance a text for a specific reason; use that enhancement consistently throughout the same presentation.
- If you use a text chart in a presentation, make the type large enough so that everyone in the room - even those at the back - can read it.

  When determining the size of your text, consider the output medium you will use; consider the size of the room and the audience, and consider the number of characters on each line of the chart. The following formula determines the height of letters (S, in mm) on your hard copies on A4-paper before preparation of slides or transparencies:

  S, in mm = D, in meters

  where D is the maximum distance between the audience of the last raw and the screen.

- If names on text charts are long, capitalize only the first letter; it is easier to read than if they were all uppercase. However, uppercase letters are popular for short names and are easier to read from a distance.
- Each graph or text chart should have a title beside any other important description.
- Avoid red and green stacked together or next one another; may be there is 4% of the audience who are green-red color-blind.
- Simple charts with few words are the most effective. Limit information to only what your audience can absorb rapidly.
- Use short words, short phrases, and short sentences. For titles and lists, sentences are not necessary; use just words or phrases.

For Bar Charts:

- Make bars wider than the space between them.
- Label bars or points along a line if you do not have numbers along the axis.
- To show the precise value of bars or points in a chart, use a combination of tick marks and grid lines.

- If you display values above the bars try removing grid lines, all or part of the frame, and even Y-axis-labels to add drama to the chart.
- In a bar chart, display labels horizontally because they are easier to read.
- If the Y-axis-data consists of large numbers, labeling bars may clutter the chart. Consider displaying fewer series or data points in the chart, or display the data horizontally to the right of the bars.
- Stagger the values of the horizontal X-axis if they are long.
- Point and line charts can benefit from grid lines especially to emphasize value instead of overall trends.
- Begin the Y- and X-axes at zero to avoid misinterpretation. If you start the axis at different number, state explicitly on the chart that the scale does not start at zero.
- Choose the scale of the Y-axis very carefully. Decreasing the scale can also decrease the impact of an otherwise dramatic change in data; conversely, increasing the scale can increase the impact of an insignificant change.
- Announce the title of the chart and any other important description.
- Avoid red and green together or next one another. Four percent of the audience could be green-red color-blind.
- Choose a line for the axes or for the text style that is heavier than the grid line.
- Choose colors or patterns so that chart layers go from dark to light.
- Each chart should contain only one idea or a maximum of two simple ideas.
- Simple charts with few words are the most effective. Limit information to only what your audience can absorb rapidly.
- Arrange series from smallest to largest in a 3D Overlap bar (or line) chart so that no series is obscured by a taller series in front of it.
- Vertical and horizontal bars may look better with no grid lines.
- Use short words, short phrases, and short sentences. For titles and lists, sentences are not necessary; use just words or phrases.
- A combination of uppercase and lowercase letters is easier to read than all uppercase letters.
- Use only a few key words in a column chart.
- Every chart should have a title, and legends on both axes.

For Organization Charts

- Illustrate only one type of hierarchy such as functions, divisions, or people.
- Display at least three and no more than about 20 boxes in an organization chart. To show a close up or details of a box, use a second organization chart.
- Every chart should have a title.

For Pie Charts

- To simplify the readability of pie charts if you are using two or more thin slices, combine these under one label with a common title like "Others."
- For proportional pie charts keep the same shape because the eye cannot translate the difference in size when it is associated with difference in shape.
- For presentations, you need to show values (or percents) within the slices so your audience can easily see the value of each slice.
- Every chart should have a title and legends.

Writing Titles for Texts or Reports

Titles for technical writing should be:

1. informative
2. brief
3. clear
4. indicative of the subject and purpose

- Avoid relative pronouns, pronouns and heavy sentences with excessive punctuation.
- The title should attract attention
- Do not capitalize the articles and the prepositions less than four letters (for, on ,at, in, but capitalize Between, Against, From, ...). Capitalize the infinitive "to."

Examples of Titles:

1. Use of Hydrogen Peroxide To Abate Hydrogen Sulfide in Geothermal Operations
2. How Policies Affect Rates of Recovery from Mineral Resources
3. Chemical Stability of Polyacrylamide Polymers
4. Study of a Possible CO2 Flooding in Rangely Field
5. Heavy Oil Recover by Steam Injection
6. Invertebrate Reptiles
7. Oil Well Drilling Technology
8. Critical View of Women in the Labour Force
9. Comparison of Dried Milk Preparations for Babies on Sale in Seven Countries
10. Comparison of Major International Petroleum Tax System
11. How Are Sales in the 90's?
12. Twenty-Nine Speakers To Present New Topics to SPE Sections
13. New Topics To Present to SPE Sections: 29 Speakers
14. PC's Rule the Desktop
15. Buy, Don't Build – What Does This Mean for a Software Developer?
16. In My Opinion

In newspapers and magazines title are capitalized in the same way as sentences:

1. Comparison of major international petroleum tax system
2. Twenty-nine speakers to present new topics to SPE sections

Writing References

In your technical text you may need to refer to a book, a scientific article, an encyclopedia, a pamphlet, an unpublished paper, a thesis, or a personal communication. Any reference to a publication should include all the data required for ordering a copy of the referenced publication. Whenever possible, therefore, the reference to the publication should give:

Reference number ordered alphabetically, or chronologically

- The name of the author
- The title of the publication
- The Name of the publisher
- Where published
- When published
- The page numbers

Examples:

A) Reference to an Article in a Scientific Journal:

19. Edmonson T. A., Blond S. B., Brighton D.L., and Crafton W. B:"Effect of Temperature on Flooding," J. Canadian Pet. Tech. (Oct. 1965) 236-245.

B) Reference to a Book:

12. Craft B. C. and Hawkins M. F.: Applied Reservoir Engineering, Prentice-Hall Inc., New York City (1959) Chapt. 3.

C) Paper Presented at A Meeting with Proceedings:

14. Henry R. L.:"CO_2 Flooding," Paper SPE 2120 presented at 1980 SPE's EOR Symposium, Tulsa, April 20-23, 1980.

D) Reference to an Encyclopedia:

25. "Data Processing," The Modern Encyclopedia, 5th Edition (1966) 2:167-172. Put the author's name if the chapter is signed by someone

E) Reference to a Pamphlet:

9. "Reference Manual," a pamphlet guide published by IBM n. d.

F) Reference to a Personal Communication:

23. Freeman E. C., Professor of Mechanical Engineering, Permingham University, Permingham, U. K.. Personal Communication to the Author, June 1982.

Wordprocessing and Technical Writing

New technology makes it easier to prepare and duplicate texts: mistakes are easily corrected; revision bit by bit is made easy and possible. Automated writing improves presentation of work. The appearance of texts becomes a regular practice rather than a distant ideal.

Repeated and easy revision is an enormous advantage of word processors. While writing, you can mark the part of the text that needs more revision than the others.

Graphics is a field where computer aid is excellent. A word-processor makes it easier to plan then organize a text. You can shuffle parts of the plan easily.

With word-processors you are not afraid of writing: Word-processors help inexperienced writers or typists to venture into typewriting. Changing what you write is not a problem and the revised text will look like as if it were an original.

Because they liberate the writer of the fear of writing, the writer may proliferate and produce extensive texts with many repetitions. Because of the ease of cutting and pasting, writing may appear as chunks of texts without cohesion. You need to read and revise the whole text, not the size of one window. Wordprocessing should not change the principal rules of writing.

You still have to make judgment about your final words, style and techniques to use. The machines cannot compose text for you. Wordprocessing may change the way in which certain writers think or work; the change could be for the worse.

Because of constraints (as restrictions on document size, fonts and style, hyphenation and margin) built in word processors and computers, writers can put the convenience of their machines before the convenience of their readers.

Word processors privilege the use of the foreign, mainly English, language at the expense of native language such as Arabic. Because of the ease of cutting and pasting, text variety may suffer. Automatic search and replace facilities may lead to improper words in improper places. Heavy dependence on spell-checkers without revising texts may lead to spelling or word errors that are not discovered by the processors.

Remember "GIGO": garbage in, garbage out. Word-processors may save time, give superficially attractive texts, but if badly organized ideas, formulated in a vague style, and put in a machine, they will be just as tedious for readers as many manually re-typed texts. Word-processor will never relieve the writers of the ultimate responsibility of writing varied, interesting, and intelligent texts. Use all the aid available to you to automate the mechanical part of the process of writing; this is to save your valuable time for the unautomatable activities: soundness of arguments, emphasis, coherence, variety and unity of the text.

Advantages and Disadvantages of some Media

Material	Advantages	Disadvantages
Black and White Boards	Writing and lecturing are spontaneous Inexpensive Easy to use	Cannot be copied Visibility may become a problem Is time consuming Do not allow record keeping Is mostly not movable The trainer does not face the audience.
Flipchart	Writing and lecturing are spontaneous Inexpensive Easy to use	Cannot be coped Visibility may become a problem Is time consuming The trainer does not face the audience.
Overheads	Trainer faces the audience Can be written on Can be used in daylight Can be coped	Difficult to make last minute changes Expensive Needs careful design Visibility depends on the venue
Posters	A means of visualization Supports memory Prepared ahead of time	Expensive and complex Time consuming Call for artistic skills
35-mm Slides	Introduces variety Shows artwork	Expensive and may become complex Time consuming Call for artistic skills Needs expensive hardware May require dimmed room light
Video	A source of variety Dynamic and multi-sensory Provides exact colors and situations	Makes audience passive Can be expensive Time consuming to produce May require dimmed room light Instructor looses eye-to-eye contact

Elements for Proofreading Written Texts

A **Proofreading Words and Group of Words smaller than a Sentence**
Check for

1. Lack of agreement between the subject and the verb: number and the person
2. Misuse of the tense
3. Considering the infinitive as a full verb
4. Using present and past participle without auxiliaries
5. Confusing main and auxiliary verbs
6. Misused past perfect without past
7. Showing passive forms of intransitive verbs
8. Using the wrong complement (for example, recommend to)
9. Misusing the continuous (… -ing) form of the verb
10. Improper use of modal verbs and conditionals.
11. The placement of adverbs relative to the auxiliary or the main verb.
12. Possible errors in using the article
13. Relative clauses
14. Wrong agreement between the pronoun, its case, and its antecedents.
15. Vocabulary and meaning
16. Errors of mechanics: punctuation, spelling, number, abbreviation, and capitalization.

B **Effective Sentences**

Check for

1 CORRECTNESS (Check for the Items **A**)

2 UNITY

Check for related thoughts, overloaded thoughts, misplaced parts of speech, excessive details, excessive use of coordination and subordination, style errors ...

3 EMPHASIS

- ♣ Determine the important parts of the sentence that serve the main idea
- ♣ Check their placement at the positions of stress: beginning, end, subject, and verb. Avoid the "dead" middle.
- ♣ Check for the use of the following techniques: subordination/coordination, repetition (full, short, pronoun, article, synonyms), arrangement of ideas in a clear order of climax), use of intensifiers, abrupt change of sentence length, parallelism, use of active-passive shift, emphatic mood, punctuation (marks, italicization, face, underlining, white space, consistent use of color and enhancement...), use of emphatic mood.

4 COHESION

- ♣ Check how the writer ties the parts of speech of the sentence.
- ♣ Check needless separation of certain parts (infinitives, modifiers ...).
- ♣ Check placement of the parts where they give the exact meaning.

5 WORD PROPRIETY

- ♣ Check suitability of the words to the subject, objective, reader and meaning.
- ♣ Check denotative against connotative meanings.
- ♣ Check suitability of the word to the development of the topic, conformity with idiomatic expressions, and determine alternative words to avoid monotonous

repetitions.
- ♣ Check the use of concrete expressions, instead of vague abstract ones.
- ♣ Check for the excessive use of nominal style.

6 CONCISENESS

- ♣ Check for the use of clear pronouns and short form repetition instead of long form repetitions.
- ♣ Check for unnecessary repetitions and excessive subordination.
- ♣ Whenever appropriate, replace clauses by phrases, and phrases by words.

7 PRECISENESS

- ♣ Use correct and appropriate expressions, and conform to normal usage.
- ♣ Check synonyms, near-synonyms, homonyms, and word-derivatives.
- ♣ Check the verb, the pronoun, the position of the modifier and the usage of the word. Pay attention to the nominal and the infinitive forms of the verb.
- ♣ Be specific.

8 CLARITY

- ♣ Check that sentences carry definite meanings.
- ♣ Use simple, concrete words. Use clear transitions within and between sentences. Order sentence parts to show emphasis.
- ♣ Omit negative or substandard words.
- ♣ Use short (but effective) sentences.

9 VARIETY

- ♣ Vary the structure and the length of the sentences.
- ♣ Avoid short, monotonous, and repetitive structures.
- ♣ Vary openings.
- ♣ Change long compound sentences to complex or simple ones.
- ♣ Vary sentence parts: clauses/phrases/words.
- ♣ Vary forms of repetition: full form, short form, article, and pronoun.
- ♣ Vary sentence pattern: use questions, commands, passive/active, negation, inversion, ... etc.

C **Style errors**: Check for parallelism, dangling modifier, run-on-sentence, incomplete comparison, excessive subordination, and nominalization.

D **Proofreading Paragraphs**: In proofreading paragraphs, consider the following:

- ♣ Check paragraphs for length and form.
- ♣ In the opening paragraph, is there an introduction? Is this introduction appropriate?
- ♣ Is there a topic sentence that presents a topic and comment(s) about the topic?
- ♣ Do the paragraphs have a particular strategy of development?
- ♣ Does each body paragraph have several (but enough, not more not less) sub-points that develop the topic sentence?
- ♣ Do the sub-points of the paragraph (details, examples, illustrations, discussions ... etc.) come directly from (or support) the topic sentence?
- ♣ Does the idea of the topic sentence come directly from the assertion of the thesis (topic) statement?
- ♣ Does the development of the paragraph suit the subject of the topic statement?
- ♣ Is there a closing paragraph that has the characteristics of a conclusion?

Remember – if you are the writer of the text to proofread – that you should put aside your work for some time to distance yourself and gain some objectivity on what you have written. While revising, put yourself in the reader's situation; make sure that your writing deliver information that the reader wants to know in a manner which is easily digested.

Proofreading the whole text should be after proofreading paragraphs which, in turn, follows proofreading sentences.

E **The whole texts.** For the whole text, composed of paragraphs ordered in introduction, body and conclusion, proofread for the following:

- ♣ Are there enough body paragraphs to support the assertion of the thesis statement and to adequately deal with the chosen strategy of development?
- ♣ Has the text covered all aspects of the communication model: SMCR?
- ♣ Proofread paragraphs for "adequate content."
- ♣ Are there transitions to connect the paragraphs?
- ♣ Have the unnecessary material been removed?
- ♣ Check for the presence of a thesis statement.
- ♣ Relation between the thesis statement and the title.
- ♣ Does the title reflect the content?
- ♣ Is there an introduction and a conclusion?
- ♣ Check the organization of the whole text.
- ♣ The different parts of the text should refer to the thesis statement.
- ♣ Check the summary for introduction, conclusion, and thesis statement.
- ♣ Verify that the type of the summary (informative, descriptive, or mixed) is appropriate.

F **Overall Presentation**: Check also for the quality of following important items

- ♣ Organization of headings and subheading
- ♣ variety in the way-to-begin
- ♣ Page numbering
- ♣ Contents
- ♣ Cover
- ♣ Nomenclature
- ♣ Font and consistency of the use of fonts
- ♣ Check text charts for parallelism and enhancement
- ♣ Check Titles, References, Appendix
- ♣ Check audiovisual material for amount of details, legibility, clarity of the message, complexity, are pictorials or graphs explained in words and referred to in the text?
- ♣ Check for the quality of presentation
- ♣ Check for the consistent use of upper and lower case.

G *If you are specialist, check for any **technical errors** in the text.*

Prepared by Dr. Fouad Khalaf

Making Effective Presentations

(Refer to PowerPoint slides)