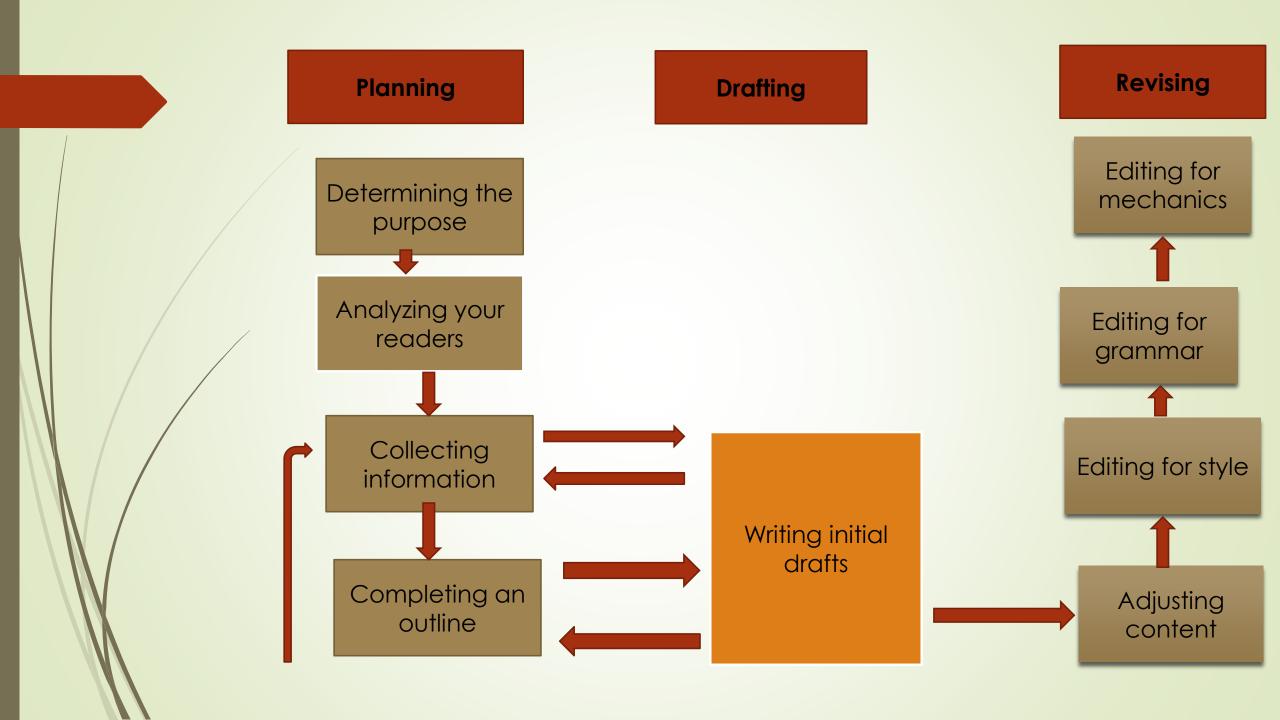
## The Technical Writing Process



#### **Analyzing Purpose**

- **■**The writer's purpose:
- Why the writer is writing the document?
- What the writer wants the reader to know and do?
- The reader's purpose:
- Why is the reader reading?
- What the reader wants to know or do?

A writer may have one of the following purposes if writing a technical document:

#### **■** To Instruct

Example Documents: Training and operator manuals, policy and procedure statements, consumer instructions, etc.

#### To record

Example Documents: Minutes, file reports, lab reports, etc.

#### **►** To Inform (for decision making)

Example Documents: Progress reports, performance evaluation, feasibility reports, investigative reports, etc.

#### **►** To Inform (without decision making)

Example Documents: Information bulletins, literature reviews, product descriptions, process explanations, etc.

#### To recommend

Example Documents: Simple proposals, feasibility studies, recommendation reports, etc.

#### **■** To persuade

 Example Documents: Construction bids, grant applications, technical news release, reports dealing with sensitive topics, etc.

Date: February 7, 2015

To: Web design team

From: Nazia Imam

Subject: Web site implementation meeting

Please attend our first website implementation meeting, scheduled for February 15, 11:00 A.M.-1:00 P.M. in Room 109.

To ensure productivity, I am asking that each of you prepare the following prior to our meeting:

- 1. Josh-inventory our stock product photos. Then determine if we will need to upgrade our graphics for the website's online shopping cart. Your job also will be to redesign our corporate logo.
- 2. Tasha- research our competitors. Find out which components of their Web sites we might need to include in ours. More important, determine new screens we could add to make our site unique.
- 3. Ychun- contact our site administrator to determine optimum load-up time. This will help josh and team decide how many graphics to use.

This is an important meeting, as you all know. Without a web site, our company has fallen behind the competition. Though our local market share is sound, our national and global sales are at least 56 percent below goal. The quick fix for this is a web site, which will allow us to reach millions of potential clients at a keystroke. With an outstanding website, our company' stock should increase, and that will mean bonuses for all.

- Determining and Analyzing Document Type
- What specific document type is required or will be appropriate. Search for the internationally accepted standards regarding format and organization

- **► Analyzing the Writing Situation/Context**
- Is the subject controversial within the organization?
- What events created the need for this document?
- What continuing events depend on this document?
- Given the deadline for this document, what information can be included?
- What influence will this document have on company operations or goals?
- Is the subject under the control of a government agency or specific regulations?
- What external groups are involved in this subject, and why?

## **Analyzing Audience**

	Reader	Purpose		
	Executives	To make decisions based on applicability, and profitability. They want conclusions and		
		alternatives rather than details.		
	Technologists,	Interested in information transfer. They need facts, details, theory, methodology, and		
	engineers, &	conclusions.		
	scientists			
	Technicians	Need information to troubleshoot, modify, upgrade, and maintain or repair equipment. They		
		need practical information in format that is easy to use. To facilitate understanding, they		
$\mathbb{N}$		rely on visuals.		
	<b>Operators</b>	Need instructions to operate equipment or to perform procedures. They need a set of easy to		
		understand commands in a step by step format with visuals.		
	Non technical	They read for interest and information		
		They read for interest and information		
	persons			

### Conducting audience analysis

- Who is/are my specific reader(s)?
- ► What is the position of the reader(s) in the organization or are they external?

#### **External: outside the organization**

Customers, vendors, stockholders, employees of government agencies or industry associations, competitors, and the general public.

#### Internal: inside the organization

- Supervisors: executives who make decisions based on information in the document. Supervisors who may be semi experts.
- Subordinates: they rank lower than the writer.
- Peers: equals.

■ Why do they need this document?

- ► How will they use it?
- Do they have a hostile, friendly, or neutral attitude towards the subject?
- ► What is the level of their technical knowledge about the subject?

	Expert level	Semi expert level	Non expert level
	They require few definitions	They may vary a great deal in	They have no specialized training
	and explanations of principles.	how much they know and why	or experience in the subject.
/		they want information. They will	Usually, they are given a glossary
		require more definitions and	of technical terms, checklists of
		explanations of general principles	important points, simple graphics,
		than the expert reader does.	and summaries.

#### **Multiple Readers**

Precede all information with headings that direct different readers to sections of the report relevant to them.

Write a different cover letter that emphasizes the relevant sections of the report and add any other relevant information.

■ Sometimes you may be required to separate, similar report for each audience.

### **Gathering Information and Ideas**

- Gather information about the subject. Also, note down the sources
- It involves these steps:
  - Data collection
  - Data analysis

Collect research data

▶ Put all material at on place: Notes, calculations, findings, important points, methodologies, procedures, conclusions, visual aids, etc.

## Investigation-Determine the type of data you need

- Secondary
- Primary

#### **Secondary Sources**

- Technical reports (industrial/corporate/available in company records)
- Research papers/articles (academic)
- Governmental reports and documents
- Newspaper
- Leading business/tech magazines
- Recognized business/tech blogs/podcasts/wikis

#### Secondary Sources

- **■** Technical books
- Almanacs and statistical resources
- Interviews on TV, radio, etc
- Electronic databases
- Online databases
- Company websites

#### **Investigation-Recognized Research Journal Publishers**

- IEEE
- ACM
- Sage
- Emerald
- Taylor and Francis
- Wiley
- Elsevier
- Routledge
- Springer

## Note

Document your sources.

#### **Investigation-Primary Data collection methods**

- Questionnaires (surveys)
- Interviews
- Observation
- Experiments

Primary sources are used only when the information sought does not exist in secondary sources.

### Sampling

- For primary data, choose research participants carefully.
- Your questionnaire must measure what it is intended to measure.
- Define your target population.
- Draw a representative sample out of it if it is too large.
- There can be two sampling methods

#### Sampling methods

- Random sampling
- Non-random sampling
  - Convenience sampling
  - Criteria based sampling

#### Investigation-Data Analysis-Secondary data

- You can use information from secondary sources in three ways:
  - Quote a source (use quotation marks/indented paragraphs for longer passages)
  - Paraphrase the material and mention the source
  - Summarize-present the gist of the material in your own words (give main ideas leaving out supporting information

#### Statistical analysis

- Use statistical software
- Simple arithmetic analysis can also be done, like, mean, median, mode, percentages, frequency
- Analyze the data to spot trends-any repeatable patterns taking place over time, including growth, decline, and cyclic trends
- Analyze causation (cause and effect relationship between 2 factors/variables)
- Correlation (simultaneous change in 2 variables that you are measuring such as customer satisfaction drops when product reliability drops)

### Data analysis

For primary and secondary qualitative data, Content analysis/thematic analysis are used

■ For quantitative data, statistical or simple arithmetic analysis may be used

## Interpreting and Critically Analyzing the Data and Material

- Select relevant and useful information from data to prove or validate your points
- Critically analyze the data and note done your findings
- Draw relevant conclusions form your analysis and study

For data analysis, you may require these skills: Examine, Analyze, Infer, Evaluate, Recognizing links, Drawing Conclusions....

# Organize your material according to the internationally accepted formats of the documents

For example, in case of user guides, reports, business letters, CVs, etc arrange information and conclusions following the recommended patterns for the document types.

This may require your to

- 1. Group information into headings and sub headings, etc.
- 2. Insert different content into the specific section designated for it.
- 3. Make charts, graphs, or tables to facilitate comprehension and presentation of data

4. Select pictures and labeled diagrams suitable for the audience and the situation of writing

5. Make a blue print or an outline

## **Drafting**

Write each section separately and then combine everything into a unified whole

You may require the following writing skills:
Summarizing, Synthesizing, Description, Explanation,
Persuasion, etc.

## **Editing and Revising**

Refer to the editing checklist.

## Writing the final draft

Write the final draft. Re-check for any mistakes

NOTE: Citation, References, and Bibliography

