

Lecture 4

Audience Analysis

In this lecture you will learn to

- Target your audience by identifying audience type, characteristics and level of expertise.
- Determine your audience's needs by assessing their expertise and their purpose in reading the document.
- Determine Document Density

People read technical documents for different reasons, and readers have varying levels of technical expertise.

To be effective, technical writing must target its audience or audiences.

Target your audience by identifying your

- audience type and level of expertise
- your audience purpose in using the document,
- and your audience attitude towards both you and the content of your document

These considerations will influence specific features of the document, including

- organization
- Introductions
- equations and mathematical models
- graphics
- technical terms
- and level of detail

These features, especially the level of detail, contribute to the *density* of the document, the rate at which information is presented to the reader.

Determine your audience's needs by assessing their expertise and their purpose in reading the document. Effective technical writing recognizes several types of readers, reflecting different levels of expertise:

- experts
- technicians
- managers
- laypersons
- mixed audiences, composed of one or more of the listed groups.

Writing for Experts

Distinguish between two types of experts:

- general experts and
- specific experts.

Both kinds are readers with extensive *technical knowledge* of the document's subject matter.

Levels of Knowledge

General experts possess extensive knowledge about a field in general, but they might be unfamiliar with particular *technical terms, specific equipment, or recent advances* in your document's subject matter.

Specific experts, on the other hand, share or surpass your knowledge about a document's subject matter.

Purposes in Using Document

Experts read technical and scientific documents for a variety of purposes:

- To maintain and expand their own general expertise
- To obtain specific answers to their own research and writing
- To evaluate a document's technical or scientific content

•Strategies for Writing to Experts

- If your audience consists solely of *specific experts*, you may not need to give extensive background or define key technical terms or acronyms.
- If your audience includes *general experts*, provide sufficient background information and define any terms that they might be unfamiliar with.
- Do not just present a concept to an expert. Also explain its parts and processes in detail.

Writing for Technicians

Technicians are the people who construct, operate, and fix things.

An office worker expert in publishing is a technician, as is the person who repairs your telephone or washing machine.

Levels of Knowledge

Technicians are often more expert than anyone else in how a particular thing works or why it doesn't work.

They are also usually familiar with the common technical terms associated with the devices they use and the processes they perform.

They may not be familiar, however, with general or abstract concepts about a device or a process.

Purposes in Using Document

- Technicians read technical and scientific documents for a variety of purposes:
 - to learn how to perform particular tasks
 - to learn how to solve specific problems
 - to learn about new devices and procedures relevant to their particular tasks
 - to acquire and expand background knowledge helpful to the performance of their tasks

Strategies for Writing to Technicians

- Keep introductions and background information brief.
- Make information accessible (*explained in next slide*)
- Provide short definitions or explanations of any unfamiliar terms, tools, devices, or procedures.

Making Information accessible:

- When appropriate, reduce information to instructions on how to perform a procedure or diagnose and fix a problem
 - Use graphs and tables
 - Keep sections and overall instructions as short as possible
- Index and cross-reference material.

Writing for Managers

Assume that managers are busy people who need to use documents primarily as tools in making decisions. Because managers read and review many documents, be *brief and to the point*.

Levels of Knowledge

Managers vary in their technical knowledge.

Many managers, especially in technical organizations, are general experts in a document's subject matter.

Rarely, however, are managers specific experts in the content of a document.

Managers usually supervise a number of projects, so they may not be familiar with every recent technological advance.

And often managers are specialists in fields such as marketing or management and have little detailed technical knowledge.

Purposes in Using Document

Managers read technical and scientific documents for a variety of purposes

- to aid in making decisions
- to assess current situations
- to maintain their general level of expertise
- to evaluate projects and employees

In general, managers read for the *bottom line*, a concise summary of the present situation and specific recommendations for action.

Strategies for Writing to Managers

- Distill key information into an executive summary.
- In general, present information in order of importance.
- Emphasize information that will aid in making decisions.

- Present sufficient background information in your introduction.
- Summarize all recommendations for action in your conclusion.
- Segment information to allow easy reading of parts of the document.
- If necessary, put long, technical explanations into appendixes.
- Use graphs to summarize information.
- Explain any unfamiliar terms.

Writing for Laypersons

A layperson is one who does not possess the technical knowledge of an expert or a technician.

Thus, all of us read some documents as laypersons; no one is an expert in all fields.

Levels of Knowledge

Do not assume a layperson has a technical background.

Unless you know that all members of your audience will understand a technical term or concept, explain it carefully, using *examples* and *analogies* with which the reader is familiar.

Some lay audiences can be classified as novices, persons who do not yet possess technical expertise in a field but are in the process of acquiring it.

Technical textbooks at different levels, for example, are written to audiences that are starting out as laypersons but may become experts.

Purposes in Using Document

Laypersons read *technical* and *scientific* documents for a variety of purposes:

- to help make decisions as citizens, consumers, and investors
- to expand their general knowledge
- to learn how to use a device or perform a procedure
- to become an expert

Strategies for Writing to Laypersons

- Present extensive background information in your introduction.
- Organize information from the familiar to the unfamiliar.
- Simplify information to the level sufficient for the audience's purpose in using the document.
 - Explain all technical terms.
- Illustrate and explain technical terms and concepts with analogies (e.g., "Your hard disk is like an attic; if it is too full, you may have trouble retrieving a specific item,") and anecdotes.

Writing for a Mixed Audience

Often a document will be read by readers with different levels of expertise.

Computer documentation, for instance, may be written for experts who are familiar with all the hardware and software processes involved, technicians who will install and support the application, a manager who may be deciding whether or not to purchase the software, and laypersons who may occasionally use it.

Strategies for Writing to Mixed Audiences

- If appropriate, create separate documents for each audience type.
- Use an executive summary to present the gist of your document in understandable language.
- If many of your readers will not be experts or technicians, place all lengthy technical discussion in appendixes and refer to them in the main body.
- Segment the document into sections so that different audiences can read different parts.
- Include in the front matter or introduction a short discussion of what sections are appropriate to each type of reader and for what purposes.
- Explain all technical terms thoroughly in any section that may be read by a lay reader.
- Include an exhaustive glossary section explaining all technical terms in either the front matter or the end matter.

Audience Use of Document

Readers of technical and scientific writing, whatever their level of expertise, read a document for three general purposes:

- to acquire information
- to help make decisions
- to learn how to do something

To Acquire Information

- Readers at all levels of expertise read technical documents to acquire information.
- Experts read current documents in their own fields to maintain their level of expertise and read documents in related fields to increase the breadth of their knowledge.
- Furthermore, experts or technicians in one field are often novices in another field and read documents to acquire a basic understanding.

Managers read to acquire both the general and the specific information necessary for them to supervise their staffs effectively and to function well in their organizations.

Laypersons read scientific and technical documents to acquire general knowledge about a subject or as novices attempting to become experts.

To Help Make Decisions

- Readers at all levels of expertise read documents to make decisions.
- An expert may read a technical study to decide whether or not to conduct a specific experiment or to use a new design element.
- A manager may need to make or approve a decision.

Technicians use documents to decide on the selection of specific hardware and software and to determine the best procedure for performing a task.

Laypersons may read documents to help select a particular product or investment.

To Learn How to Do Something

All readers, whatever their level of expertise, sometimes read instructions to help them perform various tasks.

For example A manager may read a document to learn how to use new budgeting software.

An expert may read a document to learn how to use anew device.

Attitude Toward You and Your Organization

If your audience views you as an expert, in some situations you may not need to offer lengthy explanations for your conclusions and recommendations.

When we go to a doctor, for example, we do not always ask for a detailed explanation of a diagnosis or procedure.

Similarly, a reader of a technical manual written by the manufacturer is likely to accept a statement of the possible causes of a certain type of error without further explanation.

Because the reader trusts the accuracy of the manufacturer, no explanation is necessary.

On the other hand, if the audience does not know you or does not consider you an expert, or if the reader has had past negative experience with you or your organization, the document should include extensive explanations of your conclusions and recommendations to create *trust* and establish *credibility*.

Audience Interest in Subject

Your audience's interest in your document's content will affect its organization.

If your audience is already interested in your subject, you may be able to shorten your introduction.

If your audience is not interested in your subject or if you do not know the level of their interest, explain why the material in the document is important to the reader.

Audience Attitude Toward Subject

If your audience initially may be hostile to your major conclusions, you may want to present the problem first, then your analysis, then your conclusions or recommendations.

On the other hand, if you believe your audience to be receptive to your conclusions (especially if your audience is a manager), begin with conclusions and recommendations.

Document Density

Document density refers to the amount, type, detail, complexity, and rate of information presented to the reader.

The density appropriate to any document is determined by its audience and the ways in which the audience will use it.

Matching the density of information to your audience is crucial for the success of any technical document.

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