Lecture Outline:
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- Introduction
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- Aim
- Intended Readers
- Scope
- Organization
- Usage
- Motivation
- Background
- Description of the Equipment
- Theory of Operation
- List of Materials and Equipment
- Directions
- Present the Steps in a List
- In Your List, Give One Step Per Entry
- Use Headings and Titles to Indicate the Overall Structure of the Task
- Use the Active Voice and the Imperative Mood
- Use Illustrations
- Place Warnings Where Readers Will See Them before Performing the Steps to Which They Apply
- Tell Your Readers What to Do in the Case of a Mistake or Unexpected Result
- Where Alternative Steps May be Taken, Help Your Readers Quickly Find the One They Want
- Provide Enough Detail for Your Readers to Do Everything They Must Do
- Troubleshooting

The Variety of Instructions
If you were to look at a sampling of the various kinds of instructions written at work, you would see that instructions vary greatly in length and complexity. The simplest and shortest are only a few sentences long. Consider, for example, the instructions that the state of Ohio prints on the back of the 1 x 1-inch registrations stickers that Ohio citizens must buy and affix to their automobile license plates each year: Position sticker on clean, dry surface in lower right-hand corner of rear plate (truck tractor front plate). If plate has a previous sticker, place new sticker to cover old sticker. Rub edges down firmly. Other instructions are hundreds—or even thousands of pages long. Examples of these long and highly complex instructions are those written by General Electric, Rolls Royce, and McDonnell Douglas for servicing the airplane engines they manufacture. Other examples are the manuals that IBM, Control Data, and NCR write to accompany their large mainframe computers.

This chapter describes the superstructure for instructions in a way that will enable you to use the patterns for any instructions you write at work, whether long or short. Three Important
Points to Remember When writing instructions, you should keep in mind three points: instructions shape attitudes, good visual design is essential, and testing is often indispensable. Each of these points is discussed briefly in the following paragraphs.

Instructions Shape Attitudes:
All the communications you write at work have a double aim: to help your readers perform some task and to affect your readers’ attitudes in some way. However, many writers of instructions focus their attention so sharply on the task they want to help their readers perform that they forget about their readers’ attitudes.

To write effective instructions, you must not commit this oversight. The most important attitude with which you should concern yourself is that of your readers toward the instructions themselves. Most people dislike using instructions. When faced with the work of reading, interpreting, and following a set of instructions, they are often tempted to toss the instructions aside and try to do the job using common sense.

However, you and your employer will often have good reasons for wanting people to use the instructions you write. Maybe the job you are describing is dangerous if it isn't done a certain way, or maybe the product or equipment involved can be damaged. Maybe you know that failure to follow instructions will lead many readers to an unsatisfactory outcome, which they might then blame on your employer.

For these reasons, it is often very important for you to persuade your readers that they should use your instructions. In addition, as an instructions writer, you may want to shape your readers’ attitudes toward your company and its products. If your readers feel that the product is reliable and that the company thoroughly backs it with complete support (including good instructions), they will be more likely to buy other products from your employer and to recommend those products to other people.

Good visual Aids are Essential
To create instructions that will help your readers and also shape their attitudes in the way that you want, you must pay special attention to instructions. These include visual design, including both page design and the design of the drawings, charts, flow diagrams etc.

Page Design
In instructions you need to have a good page design for several important reasons. First, readers almost invariably, use instructions by alternating between reading and acting. They read a step and then do the step, read the next step and do that step.

By designing your pages effectively, you can help your readers easily find the instructions for the next step each time they turn their eyes back to the page. This may seem a trivial concern, but readers quickly become frustrated if they have to search through a page or paragraph to find their places. When readers are frustrated by a set of instructions, they may quit trying to use them.

Through good page design you can your readers grasp quickly the connections between related blocks of material in your instructions, such as the connection between an instruction and a drawing or other visual aid that accompanies it. It is also important to remember that the appearance of instructions influences the readers to use or not use them. If the instructions appear dense and difficult to follow, or if they appear unclear and unattractive, readers may decide not even to use them.

Visual Aids
You can increase the effectiveness of most instructions by including visual aids. Well designed visual aids are much more economical than words in showing readers where the parts of the machine are located or what the result of a procedure should look like. On the other hand, visual aids that are poorly planned and prepared can be just as confusing and frustrating for readers as poorly written prose. For general advice about creating effective visual aids, wait till the following lectures.

**Testing is often indispensable**

It may seem that instructions are among the easiest of all communications to write and therefore among those that need to be tested. After all, when you write instructions, you usually describe a procedure you know very well. Your objective is to tell the reader as clearly and directly as possible what to do. Actually instructions present a considerable challenge to the writer. You will find that it is often difficult to find the words that will tell your readers what to do in a way that they will understand quickly and clearly. Also because you know the procedure so well, it will be easy for you to accidentally leave out some critical information because you don’t realize that your readers may need to be told it.

The consequences of even relatively small slips in writing – even only a few directions in a set of instructions – can be very great. Every step contributes to the successful completion of the task, and the difficulties the readers have with any step can prevent them from completing the task satisfactorily. Even if the readers eventually figure out how to perform all the steps, their initial confusion with one or two can greatly increase the time it takes them to complete the procedure. Furthermore in steps that are potentially dangerous, one little mistake can create tremendous problems.

For these reasons, it’s often absolutely necessary to determine for certain if your instructions will work for your intended audience. And the only way to find this out for sure is to give a draft to representatives of your audience and ask them to try the instructions. Have your test reader’s work in a situation that closely resembles as closely as possible the situation in which your readers will work. Gather information without interfering with the readers’ activity.

**Conventional Superstructure for Instructions**

The conventional superstructure for instructions contains five elements

- Introduction
- Description of the equipment (if the instructions are for running a piece of equipment)
- Theory of operations
- Lists of material and equipment
- Guide to trouble shooting

The simplest instructions contain only directions. Most complex instructions contain some or all of the other five elements, the selection depending upon the aims of the writer and the needs of the readers. Many instructions also contain elements found in longer communications such as reports and proposals.

Among these elements are cover, title page, table of contents, appendixes, list of references, glossary, list of symbols and index. Because these elements are not particular to instructions, they will not be discussed here in this lecture.

**Introduction**

As we discussed earlier some instructions contain only directions, and no introduction. Often however readers find an introduction to be helpful – or even necessary.

In the following example you will see how to apply that general advice when you are writing instructions. In the conventional superstructure for instructions tells some or all of the following things about instructions

- Subject
- Aim
- Intended reader
• Scope
• Organization
• Usage
• Motivation
• Background

Subject
Writers usually announce the subject of their instructions in the first sentence. Here is the first sentence from the operating manual of a ten ton machine used at the ends of assembly lines that make automobile and truck tires. This manual tells you how to operate the Tire Uniformity optimizer. Here is the second sentence from the owner’s manual for a small, lightweight, personal computer. This manual introduces you to the Apple Macintosh TM Computer. These sentences are intentionally kept simple for the sake of understanding.

Aim
From the beginning, readers want to know the answer to the question “What can we achieve by doing the things this communication instructs us to do?” With some instructions you write, the purpose or outcome of the procedure described will be obvious. For example most people who buy computers know many of the things which can be done with them. For the reason, a statement about what computers can do, would be unnecessary in the Macintosh instructions, which in fact contain none. However other instructions do have to answer readers’ questions about the aim of instructions.

In operating instructions for pieces of equipment, for example, writers often answer the reader’s questions about what the procedure will achieve by telling capabilities of the equipment. Depending upon your options to you machine, it may do any or all of the following jobs.

• Test tires
• Find irregularities in tires
• Grind to correct the irregularities, if possible
• Grade tires
• Mark tires according to grade
• Sort tires by grade

Intended readers
Many readers will ask themselves “are these instructions written for us – or for people who differ from us in interests, responsibilities, level of knowledge and so on?” Often readers will know the answer to that question without being told explicitly. In contrast, people who pick up computer manuals often wonder whether the manual will assume that they know more (or less) about computers than they do. In such situations, it is most appropriate for you to answer the question you don’t need to know anything about the Macintosh or any other Computer.

Scope
Information about the scope of the instructions answers the reader’s questions, “what kinds of things will we learn to do in these instructions – and what things wont we learn?” For example the writers of a Tire Uniformity Manual would answer that question in their third or fourth sentence. The writers of the Macintosh manual answer the same question in this way. The manual tells you how to:
Use the mouse and keyboard to control your Macintosh

Organization
By describing the organization of the instructions, writers answer the readers’ question. How is the given information given here put together? Your readers may want to know the answer so they can look for specific pieces of information. They may want to know about the overall organization simply because they can then understand the instructions more rapidly.
and thoroughly than they could without the instructions. The writers of the Macintosh Manual announce its organization at the same time they tell the manual’s scope.

Usage
As they begin to use the set of instructions, readers often ask themselves “how can we get the information we need as quickly as possible?” Sometimes the obvious answer is to simply follow the instructions from beginning to end or to look for a certain set of steps and then to follow them. The manual for the Tire Uniformity optimizer is used in just such a straightforward way, so it contains the special advice to about how readers should use it. In contrast, in some of the instructions you write, you may be able to help your readers considerably by providing the advice about how to use your communication.

Motivation
As pointed out above, when people are faced with the work of using a set of instructions, they often are tempted to toss the instructions aside and try to use the job using common sense. You can do several things to persuade your readers not to ignore your instructions. For instance, you can use an inviting and supportive tone and an attractive appearance; such are used in Macintosh Manual.
You can tell the user directly, why it is important for him to read the manual and follow the instructions. In the examples that follow, we describe two kinds of statements that writers provide.
Examples:
From the operating instructions of typewriters
To take advantage of the automatic features of the IBM 60 you need to take time to do the training exercises offered in this manual.
From the operating instructions of an office Photocopy Machine
Please read the manual thoroughly to ensure correct operation.

Background
The particular pieces of background information your readers need to vary from one instruction to the next. Two kinds of background information are important

• A description of the equipment
• Explanation of the theory of operations

Directions

• Present the steps in a list
• In your list give one set at a time
• For example
• 14 Drain the Canister
• Release the latch that locks the canister’s drain cap
• Unscrew the cap
• Use headings and titles to indicate the overall structure of task
• Use the active voice and imperative mood
• Set the dial to seven. (much simpler than “the operator then sets the dial to seven”)
• Use illustrations
• How to perform steps
• What should be the result
• Place warnings where readers will see them before performing the steps to which they apply
• Where Alternative Steps May be Taken, Help Your Readers Quickly Find the One They Want
• Provide Enough Detail for Your Readers to Do Everything They Must Do