WRITING USER DOCUMETATION

What problem can low quality documentation create for both the readers and the writers? Discuss with reference to user guides?

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Key terms and their definitions are given below:

INSTRUCTIONAL WRITING: It is that writing which gives instructions to readers regarding a well-defined and specific topic.

INSTRUCTIONS: Instructions direct/teach/guide a person to do something, furnish with information needed to accomplish something.

TASK: A specific piece of work, a distinct specific action/activity

PRECEDURE: It refers to

1. manner of proceeding; a way of performing or effecting something: standard procedure.
2. A series of steps taken to accomplish an end: a medical procedure; evacuation procedures.
3. A set of established forms or methods for conducting the affairs of an organized body such as a business, club, or government.
4. Computer Science: A set of instructions that performs a specific task; a subroutine or function.

Can you name some tasks for which instructions are written?

WRITING INSTRUCTIONS

Instructions are provided in user guides, manuals, tutorials, training videos, etc. All such documents may contain instructions for different tasks, procedures, etc.

In the context of technical writing, instructions are those step-by-step explanations or guidelines which teach/guide/help/direct users regarding how to do accomplish tasks. They explain how to carry out a procedure in order to achieve an objective. They usually teach how to assemble something, operate something, repair something, or do routine maintenance on something.

Before we move on to study how to write instructions, there is an important thing you need to bear in mind about readers before you start working on writing instructions for them.

- Users usually read the documentation in desperation, after what they tried to do failed.
- They're now frustrated, they have messed up things.
- They're lost as to how to proceed to complete their goal.

How to write instructions to explain the procedure to accomplish a well-defined and distinct task:

1. Conduct a thorough research on the task and identify all the steps that are followed to complete the procedure. Find all minute details. Visualize the procedure and show this awareness in writing. Work on achieving a technically advanced understanding of the procedure and all the steps. Make a list of all the steps. This is your rough draft.

2. Identify special requirements, conditions, cautions, warnings, any other vital background information that is needed. Inform the reader about it before beginning to instruct about the task (steps).

3. After audience analysis decide on the level of detail, organization, style, and vocabulary.

4. Write a clear heading for the task. Instructions are usually titled as "How to do task ABC", making sure that the instructions under this heading all have to do with accomplishing task ABC (and nothing else). Headings should be descriptive, informative, and direct.

Bad	**Good**
• Reports • Files • Backups	• Printing Duplex Reports, How to Print Duplex Reports • Saving XML Files To Shared Networks, • Creating and Archiving Backups

5. Although short introductions are the norm, you may want to include many different bits of information, depending on your analysis of the audience's knowledge level and of the demands of the process.
   You should always state the objective of the instructions for the reader.
   Depending on the audience, you may also:
   - Define the process.
   - Define important terms.
   - List any necessary tools, materials, or conditions.
   - Explain who needs to use the process.
   - Explain where and/or when to perform the process.
   - List assumptions you make about the audience's knowledge.

   Sample Introduction:
   INSTALLING IDGH-SPEED INTERNET
   These instructions enable you to set up a high-speed Internet gateway with a wifi access point. This will allow you to share files over a wireless network without the need to install Ethernet cables throughout your home. It will also allow you to connect wifi-only devices to the Internet including smartphones, tablets, laptops, and Internet-ready televisions.
   These instructions assume that you have subscribed to DSL service and have purchased the hardware gateway device kit provided through your local telephone company. Make sure you have wireless cards in all the computers that will connect to the wireless network.
6. Use imperative sentences. Use precise, concrete, and image building verbs. For example, "**Press** the emergency button" rather than "Hit the emergency button."
7. Always use active voice.

8. Address the reader directly using the pronoun “you”. Avoid third person pronouns.
9. Put the steps/commands in chronological order. Enable readers to visualize the procedure.
10. Explain with the help of graphics.
11. Refer to the visual aids.
12. Decide where you will place the visual aids. Usually place them to the left or below the text.
13. Use white space above and below each step. Do not cramp. the text.
14. Use a numbered list when the order is important. Use a bulleted list (like this list) when the order is not important (for example, when the reader can choose between different options).
15. Specify conditions before the primary part of the instructions. For example, at step 5 of some stocktaking instructions, do not write, "Before you start the stocktake, make sure that…" (This type of problem frequently occurs.)
16. Place safety precautions before the instructions.
17. State only one action per number (although the effect of the action is often included in the step).
18. Avoid lists of more than approximately ten steps. If possible, divide a long list of instructions into two or more different tasks.
19. Specify what the reader does when the task is complete. If a reader asks, "Now what?", the instructions are not complete.

For software, follow the guidelines given below:

a) Orient the users: tell the users where they are and what they should be seeing on their screen, such as the name of the window they should be looking at.
b) Tell them what button(s) to click on the current window and/or what text they need to type into what field(s).
c) Explain with the help of graphics (screen shots).
d) Tell them how to get to the next step/location and describe what they should see onscreen when they take that action.

In short,

tell the reader where they are→tell them what to do→describe the results of their actions

For example:

1. At your web browser's address bar, type www.gmail.com and press Enter. As a result, you will be directed to the main Google Sign-In page, which features a prominent box labeled "Sign in to continue to Gmail."
2. From "Sign in" box on the Google landing page. Click the "Create account" link at the bottom left of the box, then select "For my personal use" from the pop-up menu. Consequently, the screen will refresh to show a new window titled "Create a Google Account" with fields for your name.
3. In the new window you will find "Create a Google Account" identity screen. Type your first and last name into the designated text fields and click the blue "Next" button. Upon

clicking, the page will transition to a window titled "Basic information" requesting your birth date and gender.

4. You are viewing the "Basic information" screen. Select your birth month from the dropdown menu, type the day and year into the boxes, choose your gender, and click "Next." This action will lead you to a page titled "Choose your Gmail address," where Google suggests available email handles.
5. From the "Choose your Gmail address" screen, click the circle next to one of the suggested addresses, or click "Create your own Gmail address" to type a custom username, then click "Next." As a result, you will be moved to the "Create a strong password" screen.
6. You are looking at the "Create a strong password" window. Type a unique password into the "Password" box, re-type it in the "Confirm" box to ensure they match, and click "Next." If successful, the screen will change to the "Recovery" section, asking for a phone number or backup email.
7. You are on the "Privacy and Terms" screen, which contains a long list of Google's user policies. Scroll to the bottom of the page and click the blue "I agree" button. This final action will load your new Gmail inbox for the first time, characterized by a "Welcome" pop-up and an empty list of messages.

Example 9.1

Instructions for a Beginner

INSTRUCTIONS: HOW TO USE THE MODEL 6050 PH METER

Introduction

This set of instructions provides a step-by-step process to accurately test the pH of any given solution using the pH Meter Model 6050. The pH meter is designed primarily to measure pH or mV (millivolts) in grounded or ungrounded solutions. This set of instructions assumes that the pH meter is plugged in and that the electrode is immersed in a two-molar solution of potassium chloride.

Materials Needed

- Beaker containing 100 ml of 7.00 pH buffer solution
- Beaker containing 100 ml of 4.00 pH buffer solution
- Thermometer
- Squeeze bottle containing distilled water
- Four squares of lint-free tissue paper

How to Program the pH Meter

1. Press the button marked pH (A in Figure 1) to set the meter to pH mode.
2. Set pH sensitivity by pushing the pH sensitivity button down to .01 (B in Figure 1).

3. Gently remove the pH electrode (C in Figure 1) from the plastic bottle in which it is stored, and rinse it gently with distilled water from your squeeze bottle.

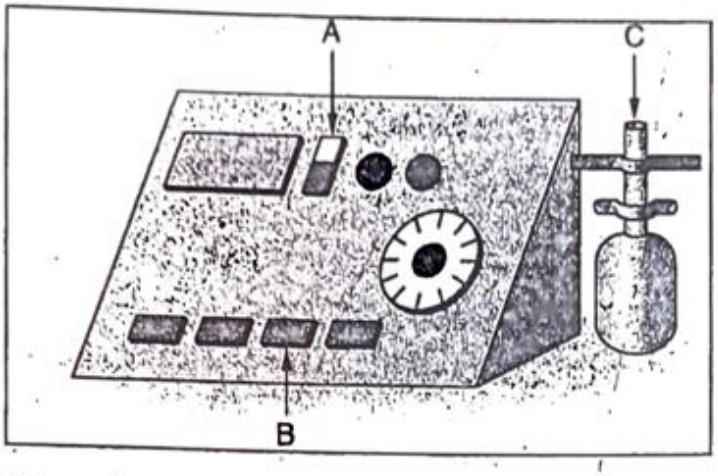

Figure 1
Sargent-Welch pH meter Model 6050

4. Carefully lower the electrode into the beaker containing the pH 7.00 buffer solution.
5. Set temperature control.
   a. Using the thermometer, take the temperature of pH 7.0 buffer solution.
   b. Turn the temperature dial (D in Figure 2) to the temperature reading on the thermometer in degrees Celsius.

6. Set electrode asymmetry (intercept) by rotating the dial marked "intercept" (E in Figure 2) until the digital display (F in Figure 2) reads 7.00.
7. Raise the electrode from the 7.00 pH buffer solution, rinse gently with distilled water from your squeeze bottle, and dry tip of the electrode using lint-free tissue paper.

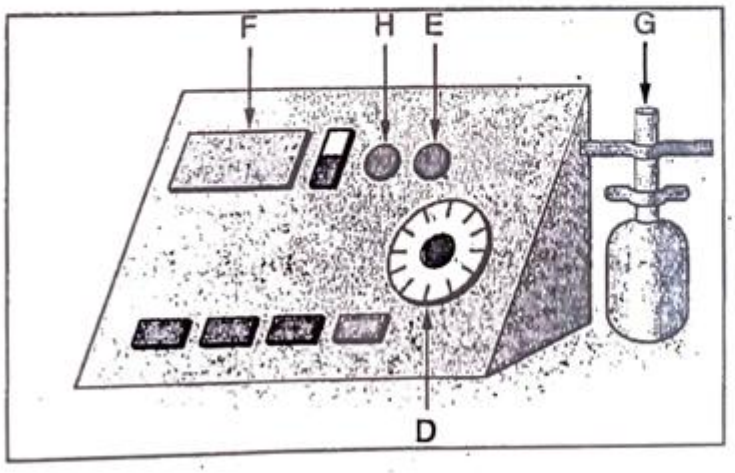

Figure 2
Sargent-Welch pH meter Model 6050

(Continued)

8. Lower the electrode (G in Figure 2) into the buffer solution of pH 4.00 to set the lower pH limit.
9. Set the response adjustment (slope) by rotating the dial marked "slope" (H in Figure 2) until the digital display reads 4.00.
10. Raise the electrode from the 4.00 pH buffer solution.
11. Rinse the electrode gently with distilled water from your squeeze bottle.
12. Dry the tip of the electrode using lint-free tissue paper.

Critically analyze the following instructions taken from the user guide of "Photo Meister Professional version 2". Find out the problems with the instructions.

Managing Photos
In helping you manage your photo collection, PhotoMeister allows you to move, delete, dump, and copy photos within PhotoMeister photo albums.

Using the clipboard
To copy the current photo into the clipboard, select **Copy** from the Edit menu. Then you can paste the photo into any other Windows application that supports the clipboard. (Please note that it may be a better idea to open the file of the photo directly within the other application to create less memory load!)

To paste an image stored on the clipboard by another application into the current album, **Paste** is selected from the edit menu. menu. PhotoMeister will ask you for a name for the new photo and then stores the photo into the album's folder.

Moving and Copying Photos

Moving and Copying Photos are accomplished in exactly the same manner

• Select a photo

• Appropriate option from the file menu should be chosen.

• Move Single Photo to Album (or Move Selected Photos to Album if working with multiple photos)

• Copy Single Photo to Album (or Copy Selected Photos to Album if working with multiple photos)

• Selecting an option will bring up the appropriate window.

• From the list of albums, choose an album to which to copy or move the selected photo(s) or create a new album by clicking "New Album"

• Click next to complete the transfer

• An informational message will appear informing you the transfer was successful.

EXERCISE 1:

Correct the errors in the following instructions. Some might be correct:

1. Allow the glue to dry adequately.
2. Drag and drop to quickly and in an easy manner rearrange headings and the content beneath them.
3. Just save the document to see changes from other editors as you work. Your changes also become available to other editors each time you save.
4. Push the stem into the fork tube a few inches in as shown in the figure.
5. After having used the equipment, sliding the temperature sensor back into its holder on the side of the control base is highly recommended.

EXERCISE 2: Write instructions for the following tasks.

1. Inserting pictures in power point slides.
2. Changing font type and size in MS Word.
3. Inserting tables in MS Word.
4. Printing MS Word Document.
5. Sharing files via Bluetooth from one mobile phone to the other.

USER DOCUMENTATION:

A common user guide can be defined as

- A **user guide** or **user's guide**, also commonly known as a **manual**, is a technical communication document intended to give assistance to people using a particular system.
- Manuals are written guides or reference materials which are used for training, assembling mechanisms, operating machinery or equipment, servicing products, or repairing products.
  Software user documentations

1. Provide helpful references to specific system functions.
2. Help the user to find the information they need quickly and easily to get right back to work.
3. Explains how to use software to do procedures. A user guide answers the question, "How do I…?"
4. A user guide can contain operating instructions, maintenance instructions, technical descriptions, flow charts, drawings, and diagrams.
5. A common user guide is the "Getting Started Guide" that is developed to help the user get comfortable using the software. A user guide should cover how to run the system, how to enter data, how to modify data, and how to save and print reports.
6. This guide should also include a list of error messages and advice on what to do if something goes wrong.
7. The user manual is vital for learning both basic and more advanced techniques of a program or application.

Manuals are typically short, but if more detail is needed, they can be much longer. The length of a manual will depend solely on the type of software and how much detail it must include. ***Users will appreciate manuals with easy to find, concise information, with enough detail to prevent confusion.***

IMPORTANCE OF SOFTWARE USER GUIDES:

Computer documentation, when done correctly, enhances the value of the software described by making it easier to use and therefore more accessible. Think of more benefits of user documentations and write
below:_____
_____
_____
_____

TYPES OF USERS:

Types of user and their typical needs are explained in the table below:	
User type	**Comment**
Absolute beginners	Require handholding, no assumptions, simple step-by-step instructions. Many pictures. Only one method of achieving a required result.
Novice	Require handholding, no or few assumptions, simple step-by-step instructions (but less detail than absolute beginners). Encouragement to learn alternative methods.

Types of user and their typical needs are explained in the table below:	
User type	**Comment**
Competent	Require brief reminders, explanations of options, alternatives, comparisons with other methods.
Advanced	Require brief reminders, trade-offs, alternatives, minimum text and few screen shots. Unusual functions, oddities, shortcuts.

TYPES OF USER DOCUMENTATION:

User documentation includes user guides, manuals, tutorials, help systems, quick reference cards, guided tours and *Getting Started* sections, often used for installation and set-up, as well as reference guides designed for referral only. For convenience, we will divide user documentation into two types:

1. Typical printed documentation
2. Typical Online documentation

PRINTED DOCUMENTATION

Type	Typical Users	Advantages and disadvantages to users
Reference manual	Advanced	Typically uses structural description. Usually focuses on how and what to do, not why. Most material is rarely used, but it must be available.
Introduction / Welcome guide	All	Useful for setting the context. Usually redundant as soon as the user is familiar with the software.
User guide	Beginner, competent	To be useful to novices, must set the context, and make everything clear. No or few assumptions, and therefore, quite verbose. Possibly, quickly becomes redundant.
Quick reference / Checklist	Competent, advanced	Compact. Users must know what they want to do before they can use these.

ONLINE DOCUMENTATION

Type	Typical Users	Advantages and disadvantages to users
Online manual	Novice, competent, advanced	Easy to search on keywords (but not concepts). Those users who want a paper copy must print one themselves.
Context-sensitive help (window-level)	Novice, competent, advanced	Typically, when a user calls the help, the help topic explains the functions of the buttons and entry boxes in the dialog box or window from which the help was called. This is excellent for reference information, but it is not particularly useful for getting the global picture.

Type	Typical Users	Advantages and disadvantages to users
		A large problem is that one procedure typically uses many dialog boxes, and sometimes, one dialog box is used in many procedures. Additionally, help topics are necessary to explain processes, procedures, and concepts. Usually, the help topics cannot be context sensitive.
Popup help (What's This? help, field-level help)	Novice, competent, advanced	Sometimes, useful as a short reminder. However, it is sometimes a waste of time. Typical example: an entry box says 'Name' and the help says 'Enter the name here'. Bad for explaining the general picture. Information must be duplicated in Help Topics window or HTML-based help, because otherwise it is difficult to print many items.
Online video	Novice, competent	Shows users how, but needs to be high quality and clear. (Implementation requires considerable memory.) Operations must be slow. Useful for beginners, but probably not as good for advanced users, because a sequence of menu options is faster to read. Mouse clicks and keyboard entry of non-printing characters is not explicit.
Computer-based training (CBT)	Novice	Useful in training environments where users do not expect to do useful work. Possibly, persuading users to use the material is difficult.

We will study how to prepare a typical user guide or online manual for a software application. We will target novice users.

A user guide can contain operating instructions, maintenance instructions, technical descriptions, flow charts, drawings, and diagrams. Sometimes, a user guide has full information about all the tasks that users do. Sometimes, a user guide has information only about the most frequent tasks or the most important tasks that users do.

Usually, a good combination of documentation is a user guide that contains only basic information, and online documentation that has full help about a product. This combination of documents has the following benefits:

- Users have all the information that they need.
- The user guide is relatively small.

Software developers can write the reference information in online documentation.

On the other hand, a reference manual is a document that explains the parts of a product. A reference manual answers the question, "What is x?"

Usually, a reference manual for software has the following features:

- Necessary background information and theory about the subject
- Full information about the product
- An explanation of each dialog box, screen, field, tab, and button
- An explanation of all the options that users have.

PREPARING SOFTWARE USER GUIDES:
The procedure contains the following steps:

1. **INTENSIVE RESEARCH ON THE PRODUCT, USERS, AND OTHER ESSENTIAL INFORMATION:**

It is very important that you conduct a professional inquiry on the users and the software. You can use the following attack strategies:

a. Refer to the programmers to find out all the things that the software can do. Find out what tasks it can accomplish, what functions it can perform, how does it help? what it can do, precise description of the software and its objective, and so on.
b. Interview potential users to find out how they will use the software, why they will use it, what do they want to accomplish, and so on.
c. How does the software make things easier, efficient?
d. List down all functions (basic to advanced), all tasks that can possibly be accomplished through the software, all options, accurate names and titles for everything, etc.

2. **MAKE AN OUTLINE TO HAVE A PLAN TO FOLLOW:**

1. A typical software user guide consists of the following sections.

The installation procedure, software purpose, menu descriptions, common tasks, advanced functions, and a troubleshooting section.
Also, include sub-sections in your outline for specific tasks. Following is an example outline, starting with the introduction and advancing to complex features:

- Introduction of the system
- "Getting started" tasks
- Developing the system
- Modifying the system
- Customizing the system with advanced features
- Conclusion

3. **WRITING DIFFERENT COMPONENTS OF A USER GUIDE:**

a. **<u>Introduction:</u>**

Introduces the software, describes it, and explains its purpose and objective. It explains what the software does.

Provide a detailed description of the software's purpose. Include what a user needs the software for and how they can benefit. For instance, if the software deals with accounting, explain common accounting tasks that the software makes easier. Explain which functions are the most important to the end user. This will give the user an idea of which functions to try to learn first. For instance, in music creation software, tell the user about how many tracks can be recorded at once, any included sounds and rhythms, and the formats the files can be saved in.

Include a brief description of advanced features that makes this software different from others on the market. For instance, your software may be able to generate more reports or supports more file types than any other program currently available.

b. Installation Procedure:

Detail the installation process, including computer requirements. Provide requirements before the main installation procedure so users can prepare their computer. Include even the most basic steps for computer beginners. These steps may include "double-clicking the installation file" or "insert the CD into the CD-ROM drive." Typical installation steps involve explaining installation options, such as a typical installation versus an advanced installation, walking the user step-by-step through each GUI screen they encounter, registering the software and entering any codes or serial numbers, and how to access the program once installed to verify correct installation.

c. Orient Users:

Explain how to navigate menus. Explain each item in the menus provided. Any items that cannot be explained in one or two sentences should be included in the Common Tasks section of the manual. These tasks could include changing fonts and colors, printing to different formats and file types, and organizing files and information.

d. List Important Tasks Along with the Procedure:

Give detailed instructions about accomplishing different tasks that the software can perform for you. Use graphics, notes to ease comprehension. Also, give instructions for task that a user will have to perform in order to achieve a higher objective.

e. Advanced Functions and Extra Features:

Write a separate section for advanced functions and extra features. This is the place to go into detail. For instance, a user manual for Microsoft Excel might include information on creating reports, links, and macros.

Extra features will include functions the end user may not expect. For instance, music creation software may come bundled with a music player. Take the time to explain extras that may come with your software, or unique uses of the software.

f. Troubleshooting Section:

Provide troubleshooting tips. Explain the meanings of any errors the user might encounter, how to solve the issue, and how to prevent it in the future. This is also the place to include contact and help desk information.

g. The Title Page and Index:

Design a title page with the software name, version. It may be followed by legal copyright details.

Design a clear content page with page numbers.

Design an index and place at the end of guide. An **index** (plural: **indexes**) is a list of words or phrases ('headings') and associated pointers ('locators') to where useful material relating to that heading can be found in a document. In a traditional back-of-the-book index the headings will include names of people, places and events, and concepts selected by a person as being relevant and of interest to a possible reader of the book. The pointers are typically page numbers, paragraph numbers or section numbers.

THE ROLE OF A TECHNICAL WRITER IN THE PROCESS OF DEVELOPING SUGs:

An effective way to write a user guide is to create all the content in an online help system, such as RoboHelp, and then create the user guide through the printed documentation feature. Single sourcing is the act of writing the content once and using it in many formats. This way, you have created the online help system for the computer application along with a user guide for your end users.

The writer of a user guide should have a good working relationship with the product development team. Usually, the technical writer works directly with the developers and documents the step-by-step instructions on how to perform a system function. Technical writers design, write, and organize documents to deliver clear and consistent technical information. Well-written technical information can reduce human error, ease transition to a new system process, and reduce training and support costs.

Technical writers work closely with developers to write, test, rewrite, and retest the system features until they have a good draft for review. The next step is to submit the user guide for editorial review. At the same time, the quality assurance engineer should review the user guide for technical accuracy. Before publication, it is a good idea to double-check with the developers for last-minute system updates. After all the last-minute edits have been made, then the technical writer can send the user guide to the printer.

Exercise 1:

Arrange the following tasks in the correct logical order. Justify your choice:

1. Picture Editing Tools New and Improved
2. Recover unsaved versions
3. Open type Typography New!
4. Additional SmartArt Graphics
5. Shapes and Effects Improved
6. Insert Screen Shots