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TECHNICAL COMMUNICATION

(KAS 301/401)

AKTU 1st Year

Technical Communication

(KAS 301/401)

L: 2, T: 1, P: 0   Internal Marks: 30+20=50   External Marks: 100   Total Marks: 150   Credit: 3

AKTU 1ˢᵗ Year

KULBHUSHAN

www.KKWorld.in
www.YouTube.com/KrazyKaksha

Unit 1: Fundamentals of Technical Communication

1.1 Communication

The word "communication" has been derived from a Latin word 'communicare' which means 'sharing'.

So, The communication is the act of sharing or exchanging information, ideas or feelings.

1.2 Technical Communication

Technical communication is a communication that conveys complex technical information in an easy-to-understand manner.

(OR)

Technical communication is the study of the targeted audience and then finding out the best way to present the information.

It involves gathering knowledge from experts and customers by conducting interviews, testing their topics, studying existing information and finally reshaping this information, so that the correct audience can access, understand and use it.

1.3 Features of Technical Communication

✓ Addresses particular readers or audience.
✓ It has sentences of moderate length.
✓ It has Logical division of paragraphs.
✓ Helps people to solve problems.
✓ Reflects an organizations goals and culture.
✓ Consists of words or graphics or both.
✓ Is produced using high tech tools.
✓ It disseminates knowledge in oral or written form.

1.4 Purpose of Technical Communication

Technical communication serves three purposes that sometimes overlap:

1. **To inform:** Anticipate and answer your readers' questions.
2. **To instruct:** Enable your readers to perform certain tasks.
3. **To persuade:** Motivate your readers.

1.5 Approaches/Requisites of Technical Comm.

1. **Brevity:** It should be brief and provide information in a concise manner.
2. **Clarity:** It should be clear without any confusion.
3. **Simplicity:** It should be written in a simple language.
4. **Objectivity:** It should be written in limited words.
5. **Utility:** It is done for some specific purpose.
6. **Vocabulary:** It uses specific technical vocabulary.
7. **Informative:** It should be used to give specific information.
8. **Use of active voice :** Active voice should be used as it is easy to understand and emphasis is laid on the subject and not on the object.
9. **Avoid repetition :** Repetition should be avoided.

1.6 General V/s Technical Communication

General Comm.	Technical Comm.
Contains General Message	Contains Technical Information
Informal in style	Formal in style
Mostly Oral	Oral or Written
Do not follow any set of pattern	Follows Set of Pattern
Not always for specific audience.	Always for specific audience
General vocab is used	Technical vocab is used
No use of technical terms or graphics.	Frequently involves jargons, graphics, etc.

1.7 Language as a tool of Communication

✦ In order to express the ideas in a proper way we need a language to communicate so language is very necessary for our daily life.
✦ Effective communication is made possible with the help of language.
✦ Language employs a combination of words to express ideas in a meaningful way.
✦ By changing the word order in a sentence, you can change its meaning, and even make it meaningless.
✦ Physical gestures are also sometimes the medium of expressions. For example, crying in anger, laughing or waving hands helps a person to communicate some of his feelings.
✦ Man has invented language which helps him to communicate with different parts of people.

1.8 Characteristics features of Language

1. **Language is Artificial:** Man has created language for his convenience, to express his thoughts and experiences.

2. **Language is Restricted:** When we translate our thoughts into language, some meaning is lost in the process. So, Some time we feel unable to express our thoughts in words because all can not be explained through words.

3. **Language is Arbitrary:** There is no direct relationship between a word and the idea or the object it represent. We cannot say why we name a piece of furniture with four legs as "chair"; it could have been something else.

4. **Language is Abstract:** Language is abstract because it represents generalized ideas of things or thoughts. A word could represent different ideas at different times.

5. **Language is Creative:** Language is creative because it has the ability to generate many words every day.

1.9 Reading & Comprehension

- **"Reading"** is the process of looking at a series of written symbols and getting meaning from them.
- The reading is of different types.
    1. **Reading extensively:** For general understanding of the subject.
    2. **Reading intensively:** For in-depth knowledge of the text.
- **"Reading comprehension"** refers to the ability to understand the information presented in written form.

Reasons for Poor Comprehension are:
1. Inability to understand a word.
2. Inability to understand a sentence.
3. Inability to understand how sentences relate to one another.
4. Inability to understand the information fits together in a meaningful way (organization).
5. Lack of interest or concentration.

Tips to Improve Comprehension Skills:
1. Read a variety of materials. Do not limit yourself to textbooks.
2. Read a fairly long portion of the material. Try to read an entire section or chapter instead.
3. Circle unknown or unfamiliar words as you read.
4. After reading, recall as much of the information as possible.
5. Consider how interesting the subject matter is and how much you already know about the subject.
6. Answer questions about the material after reading it.

1.10 Technical Writing

- ◇ Technical writing is a type of writing where the author is writing about a particular subject that requires direction, instruction, or explanation.
- ◇ This style of writing has a very different purpose and different characteristics than other writing styles.
- ◇ Technical document is written keeping focus on the type of audience being targeted.

1.11 Sentences

A sentence is a set of words that are put together to mean something.

Requisites or Salient Features of Good Sentences
1. **Brevity (Short Sentences):** It should be brief and provide information in a concise manner.
2. **Clarity:** It should be clear without any confusion.
3. **Simplicity:** It should be written in a simple language.
4. **Utility:** It is done for some specific purpose.
5. **Avoid repetition :** Repetition should be avoided.
6. Choose appropriate words

1.12 Paragraph

A paragraph can be defined as a group of sentences or a single sentence that expresses a single idea, supported by evidence in the form of examples, thus forming a unit.

Requisites or Salient Features of Good Paragraph
1. **Brevity (Short Sentences):** It should be brief and provide information in a concise manner.
2. **Clarity:** It should be clear without any confusion.
3. **Simplicity:** It should be written in a simple language.
4. **Utility:** It is done for some specific purpose.
5. **Avoid repetition :** Repetition should be avoided.
6. **Informative:** It should be used to give specific information.
7. **Use of active voice :** Active voice should be used as it is easy to understand and emphasis is laid on the subject and not on the object.
8. Choose appropriate words

Basic three sections of a paragraph:
1. Beginning - Introduce your idea.
2. Middle - Explain your idea.
3. End - Make your point again, transition to next paragraph.

1.13 Principle Requirements of Paragraph Development

1. **Topic sentence:** Topic sentence is a sentence that expresses the main idea of a paragraph. This is also known as key sentence or theme sentence.

2. **Coherence:** Coherence refers to the clear and logical thinking of ideas in a paragraph in such a way that a thought expressed in a sentence easily leads to the thought in next sentence and so on. The word coherence literary means Consistency. Four devices used to build up this coherence.
   a. **Pronouns:** It is used as a substitute for a noun, and this always serves as a reminder of the noun in the earlier sentence. Thus, it maintains the continuity of thought.
   b. **Repetition:** The repetition of some keywords or phrases in the paragraph serves not only to make the paragraph coherent but also to emphasize the author's point of view.
   c. **Synonyms:** Synonyms are substitutes for words already used and have similar meanings. This device is useful because it helps the writer to avoid excessive repetition.
   d. **Connectives**: These are words or phrases which usually occur at the beginning of a sentence to show the relationship between the new sentence and the preceding sentence. Examples of connectives : but, and, or, further, etc.

3. **Unity**- Unity refers to one as a whole or oneness. All the parts of a paragraph should contribute to one effect and lead to unified purpose. One idea should be expressed in one sentence and avoid too much lengthy sentences.

1.14 Devices or Methods or Techniques for Paragraph Development

1. **Inductive Order Method:** When the matter consists of some details or known facts, the consideration of which leads to a conclusion, it is desirable to adapt the inductive method. This is a logical arrangement, beginning with the supporting information available and concluding with a topic sentence or a conclusion.

2. **Deductive Order Method:** The deductive method is the opposite of the inductive method. It reverses the arrangement of matter prescribed in the inductive method. When a statement is made in the beginning, and it is followed by the facts that substantiate the assertion or suggestion made in the beginning, this method is adopted. In it, one starts with the topic sentence, and goes on to record the supporting facts.

3. **Exposition Method:** These paragraphs explain how something works or what the reader is to do to make it work. Such paragraphs demand certain knowledge. Nevertheless, writing them is a great exercise to understand the material, because you keep learning when you teach. In expository writing, linking words like first, second, then, and finally are usually used to help readers follow the ideas. Exposition is explanatory writing. Exposition can be an incidental part of a description or a narration, or it can be the heart of an article.

4. **Linear Method:** Linear means 'consisting of lines' or 'one dimensional'. Each sentence leads to the next one in a paragraph, with the purpose of maintaining a forward movement; and each paragraph can be a step to take us to a goal. A logical series can be made even a consecutive arrangement of information.

5. **Interrupted method:** Whenever the writer gives a break to the line of thought and gives a turn to the idea to produce the desired effect, he uses this method. The punctuation marks , ( ) _! (comma, parentheses, em dash, exclamation mark) serve as interrupters and add emphasis to the sentences. The interrupt the flow of sentences by breaking chunks of ideas. Remember, interrupters can be words, phrases, or punctuation marks.

6. **Spatial Order Method:** When the matter refers to certain areas, an area-wise arrangement of the matter must be preferred to present it systematically. This method helps the reader to visualize what he sees and, therefore, it is better to understand the physical qualities of the subject matter.

7. **Chronological Method:** When the matter refers to some developments in terms of time, a chronological order introduces system in its presentation. This order is preferred in historical narrations.

1.15 Technical style

- ✧ Style in technical communication is the way one speaks or writes to convey technical information.
- ✧ Style in technical communication depends on the audience, the communicative context, and the purpose of communication.
- ✧ Style is formal in a technical report or professional presentation and informal as a personal letter or casual conversation.

Ingredients or Requisites or Salient Features of Technical Style

1. Brevity: It should be brief and provide information in a concise manner.

2. Clarity: It should be clear without any confusion.

3. Simplicity: It should be written in a simple language.

4. Objectivity: It should be written in limited words.

5. Utility: It is done for some specific purpose.

6. Vocabulary: It uses specific technical vocabulary.

7. Informative: It should be used to give specific information.

8. Use of active voice : Active voice should be used as it is easy to understand and emphasis is laid on the subject and not on the object.

9. Avoid repetition : Repetition should be avoided

1.16 The Flow / Dimensions / Levels of Communication
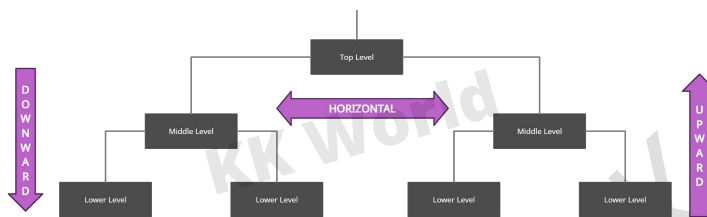
1. Downward communication:

● Downward communication refers to the:
   a. Communication from the higher level in managerial hierarchy to the lower level.
   b. Communication from decision makers to the workers.
   c. Communication from seniors to their subordinate employees.
● It involves the transfer of information, instruction, advice, request, feedback and ideas to the subordinate staff.
● The main function of downward communication is providing direction and control.
● A communication from General Manager of a company to the Branch Managers is an example of downward communication.

2. Upward communication:

● Upward communication refers to:
   a. Communication from subordinates to superiors.
   b. Communication from employees to management.
   c. Communication from workers to decision makers.
● Upward communication involves the transfer of information, request and feedback from subordinates to their seniors.

● It promotes better working relationships within an organization by giving the subordinate staff opportunities to share their views and ideas with their supervisors.
● It facilitates employee involvement in the decision-making process.
● A business report from the Branch Manager of a company to the Managing Director of the company is an example of upward communication.

3. Horizontal or lateral communication:

● It takes place between professional peer groups or people working at the same level of hierarchy.
● It is the communication among workers at the same level.
● The main objectives of horizontal communication are:
   a. Developing teamwork within an organization.
   b. Promoting group coordination within an organization.

4. Diagonal or cross-wise communication:

● It is the product of modern changes in information technology and management.
● It is a response to market needs that demand speed and efficiency.
● Diagonal communication flows in all directions.
● Diagonal channel occurs between people who do not have to follow rigid norms of communication protocol.

1.17 Barriers to Communication

1. Physical And Physiological Barriers: These include distance, background noise, poor or malfunctioning equipment, bad hearing, poor eyesight, speech impediments.

2. Emotional And Cultural Noise: Emotions (anger, fear, sadness) and attitudes (having to be right all the time, believing oneself to be superior or inferior to others) affect objectivity, as do the stereotypical assumptions that people make about each other based on cultural background.

3. Language Barrier: Speaking different languages, having strong accents, using slang or jargon can frustrate communication and negotiation efforts.

4. Nothing Or Little In Common: Examples, stories and anecdotes can help get a point across, except when the audience cannot relate to any of these because they don't share a common experience with the speaker.

5. Lack Of Eye Contact: Not making eye contact is a sure way of raising doubt in listeners and losing their attention and making them feel suspicious of you, not to mention invisible.

6. Information Overload And Lack Of Focus: Too much information can confuse your audience and even make them wonder if you're overwhelming them with details to avoid telling them something else they would rather know.

7. Not Being Prepared, Lack Of Credibility: If you're not prepared, if you lack the facts, if you rely on your Power Point presentation too much, your listeners will notice and feel let down, even disrespected–and they won't believe you.

8. Talking Too Much: When you talk, you're not listening, and you need to listen to the people you're attempting to persuade.

9. Trying Too Hard, Seeming Desperate: When you try too hard to persuade someone, you may seem desperate, and desperation smells like manipulation and turns people off before you can utter your next desperate word.

10. Lack Of Enthusiasm: If you don't believe in your position, product, service, or whatever you're trying to sell, they won't believe in it either.