

MODULE – I

INTRODUCTION TO TECHNICAL COMMUNICATION

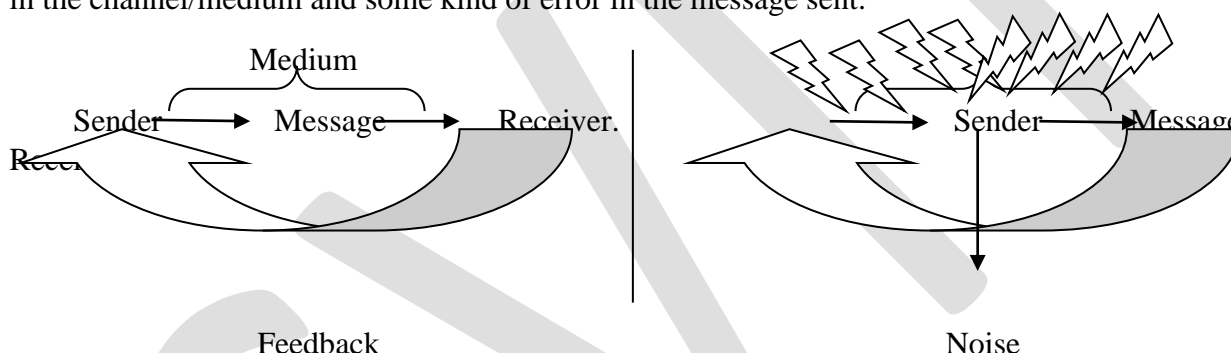
CONCEPT OF COMMUNICATION

Communication is a process which means the transfer of ideas, feelings, plans, messages, or information from one person to another. However, communication is considered to be effective only when it gets the desired action or response.

PROCESS OF COMMUNICATION

Communication is a process by which the information is encoded, channelled, and sent by a sender to a receiver via a medium. The receiver then decodes the message (to understand) and gives the sender a proper feedback. Basically all forms of communication require a sender, a channel, a message, a receiver, and the feedback that effectively calls the process.

NOISE -When an unplanned interference of sound in the communication environment, causing hindrance to the successful transmission of the message is called noise. Noise may occur due to two reasons: disturbance in the channel/medium and some kind of error in the message sent.



DIFFERENT TYPES OF COMMUNICATION

Communication is generally classified into the following types:

- 1) Verbal communication.
 - a) Oral communication- A face-to-face interaction between the sender and the receiver.
 - b) Written communication- Sender uses the written mode to transmit his/her messages like reports proposals, etc
- 2) Non-Verbal Communication- Communication without using a word through body language.
- 3) Intrapersonal communication- Communication taking place within one's own self during self-reflection, contemplation, and meditation.
- 4) Interpersonal communication- Written or oral communication that occurs between two or more persons
- 5) Extra personal communication- Communication with non-human entities, such as animals, birds, etc

6) Mass communication- Conveying messages to an entire populace through books, the press, cinema, television, radio, the Internet, etc

7) Media communication- Communication through electronic media, such as computer, Internet, cell phones, LCD, video, television, etc.

TECHNICAL COMMUNICATION

Technical communication is one of the different varieties of professional communication. In the professional world, individuals engage in technical communication in a variety of contexts and with varied professional interests. For instance, technocrats, scientists, engineers, architects, and doctors as communicators often required to send the information related to their technical sphere or field of work in the form of technical reports, technical research papers, emails, web pages, digitally stored texts, etc. Technical communication is considered effective when some scientific, engineering, medical, or some other technical information is successfully conveyed, exchanged, or transferred from one expert to another.

DIFFERENCE BETWEEN GENERAL COMMUNICATION AND TECHNICAL COMMUNICATION

General Communication	Technical Communication
Contains general message	Contains a formal and technical message
Informal in style and approach	Mostly formal and objective
No set pattern of communication	Follows a set pattern such as sequence of elements in a report
Mostly oral	Both Oral and Written
Not always for a specific audience	Always for a specific audience
Does not normally involve the use of technical vocabulary, graphics, etc	Involves Technical Graphs, tables, charts , Pictures, Images, designs, algorithms, etc
Allows flexibility with regard to sitting and standing posture, touch, facial expressions, walk, body movement etc.	In professional contexts, technocrats need to follow the decorum of the occasion, gestures, and manners.

NEED OF TECHNICAL COMMUNICATION

In terms of Technical Communication, to build Functional and Practical approach among the students, to enhance LSRW skills, with the help of numerous examples to practice, it provides a support for Laboratory sessions through Laboratory Manuals and companion CDs. It helps to enhance Day-to-day communication needs with different language skills and also to gain knowledge in different subjects.

FEATURES OF TECHNICAL COMMUNICATION

- 1) It always addresses a particular audience. For instance, a talk on troubleshooting.
- 2) Technical communication helps organizations solve problems, improve functioning, or provide solutions to technical snags. For example, when an engineer wishes to propose a new technical idea for improving the production process and reduce the cost, he/she will share his/her idea by submitting a technical proposal.
- 3) Technical communication often falls in consonance with the goal and culture of an organization.

- 4) It is generated collaboratively as now-a-days different teams work on different projects or different aspects of the same project.
- 5) Technical communication thrives on a user friendly design to increase readability and accessibility
- 6) It is always concise, focused, factual, and objective, as the messages are conveyed keeping in view a specific purpose.
- 7) Technical communication often consists of words or graphics or both for maintaining technical accuracy and for exuding professional flair.

BARRIERS TO EFFECTIVE COMMUNICATION

When it comes to effective communication, there are certain barriers that every organization faces. Here are a few of the most commonly-found barriers to communication in an organization

- **Perceptual barriers** - Different people have different perceptions about the same reality. For instance, one room could be big enough for one teacher but the same room could be small for another as She/he has more number of students to teach. This kind of difference in perception leads to miscommunication.
- **Listening barriers** - Poor listening often results in incomplete, incorrect, and inconsistent responses. Sometimes people do not listen to others properly and patiently because rather than listening to others views, they may just be waiting anxiously for the speaker to keep quiet so that they may articulate their own views.
- **Language barriers** - Language is a vehicle to effective communication and when two communicators do not share the same language, they encounter difficulty in understanding each other. This problem further aggravates when the second language learners do not use the language with accuracy in a given context (For example, what is called sidewalk in the US, in Britain it is called pavement, platform. Similarly, it is apartment in the US, flat in Britain, and house in India).
- **Cultural barriers** - People across the globe belong to different cultures. A cultural barrier arises when two different positive and negative meanings associated with colours, signs, designs, shapes, symbols, gestures, and posture.
- **Physical barriers** - Research shows that most offices have closed doors and cabins for those at higher levels of the organizational ladder, while the working areas are physically placed far apart. This kind of barrier prevents team members from interacting effectively with each other and authorities.
- **Psychological barriers** - Such barriers to communication distort or prevent effective communication within an organization. Subordinates usually have fear and distrust their seniors owing to the latter's dominance, arrogance, or lack of concern for them. Even if they have genuine reasons or plans or suggestions for the working of the organization, they do not feel free to articulate their thoughts due to the authoritarian attitude of their seniors.
- **Physiological barriers** - Due to headache, fatigue, or other ill health reasons, at times people involved in the communication process are not able to send or receive the messages properly. This leads to either complete breakdown of communication or miscommunication between them.
- **Attitudinal barriers** – due to anger, sadness, frustration, lack of interest, distracting natured etc.
- **Emotional barriers and Taboos** – difficult to express emotions, some topics may be completely off limits or taboo (example – politics, religion, disabilities, sexuality, racism etc)

- **Jump in to early conclusion** - a source may lose his interest and concludes the information due to disturbances or corresponding situations and vice versa.

DIFFERENT STYLES IN TECHNICAL COMMUNICATION

Style in technical communication refers to the way an engineer or any other technocrat speaks or writes to convey technical messages in and outside the company or organization.

- Though mostly factual and objective in style, the tone and tenor in various technical documents depends a lot on the audience, context, and purpose.
- Broadly speaking, technical communication involves both formal and informal expression in communication. Besides the content, degree of formality also depends on the relationship between the sender and the receiver, the nature of the task involved, and the occasion or in short conversations during breaks in office.

Keeping in view the nature of technical communication, it is essentially characterized by

- **Traditional** – in traditional style the source is particular about the subject that requires direction, instruction or explanation.
- **Brevity** – quality of being brief and comprehensive in expression (avoiding repetition, avoiding wordiness)
- **Accuracy** - In the technical field, one must maintain accuracy in giving information
- **Clarity** – quality of being unambiguous and the content must be easily understood, clarity can only be achieved when messages are communicated unambiguously and with the use of specific or direct language, feeding specific terms/words or lucidity in expression)
- **Tangible** – Something that can be seen or touched such as computer, software program or an information on how to assemble a piece of materials.
- **Abstract** – quality that involves series of steps that are not related to a tangible object. (Example – Natures)

INTERPERSONAL COMMUNICATION

Interpersonal communication is the process by which people exchange information, feelings, and meaning through verbal and non-verbal messages: it is face-to-face communication.

Interpersonal communication is not just about what is actually said - the language used - but how it is said and the non-verbal messages sent through tone of voice, facial expressions, gestures and body language.

When two or more people are in the same place and are aware of each other's presence, then communication is taking place, no matter how subtle or unintentional.

Without speech, an observer may be using cues of posture, facial expression, and dress to form an impression of the other's role, emotional state, personality and/or intentions. Although no communication may be intended, people receive messages through such forms of non-verbal behaviour.

HOW TO IMPROVE INTERPERSONAL COMMUNICATION SKILLS

Must have excellent verbal, written, and interpersonal communication skills

- **Be open to and ask for feedback.** The point of a conversation is an exchange of ideas between two people, not a one-way street.
- **Paraphrase.** When someone asks you to do something, repeat back to that person what they asked you to do in your own language. You've proven you not only listened to what they said; you also understood what they were asking for.
- **Listen actively.** Usually some will involved in a conversation where they can tell the other person is thinking about something else or isn't even hearing what the other saying, the speaker know that they are connecting with them by nodding or responding when they ask a question. Keep your focus on the conversation at hand.
- **Maintain eye contact.** Part of active listening is maintaining good eye contact. By doing so, you avoid being distracted by what is going on around you and you give the speaker non-verbal acknowledgement that you are listening. It's okay to look away once in a while; staring intently at the person you're speaking with can make that person uncomfortable.
- **Be aware of your body language.** Without saying a word, you can speak volumes with your body language. Are your arms crossed? You aren't open to another person's idea. Are your hands on your hips? You're being defensive. Be aware of what you are physically doing while you're listening and speaking.
- **Avoid unnecessary conversation fillers**, like "ums," "uhs" and "likes." They distract the listener from hearing your message. Think about what you're going to say before you say it.
- **Be respectful of other people's thoughts and opinions.** While you may disagree with what the other party is saying, remember that (as difficult as it may be) they have a right to their own opinion. If you find yourself ready to pounce on the person you're speaking with because their opinion is not in line with yours, wait until they're done speaking and express your thoughts on the subject in a non-confrontational manner. Even if, in the end, you wind up agreeing to disagree, you both walk away with a different viewpoint on a subject.
- **Practice.** You know what they say: practice makes perfect. With the tips above in mind, attend various community networking events that require you to participate so you can practice good body language or active listening. Pay special attentions to how well others communicate and emulate those you feel succeed at paraphrasing or maintaining eye contact.

PARTS OF SPEECH

The **part of speech** explains how a word is used in a sentence.

There are eight main parts of speech (also known as word classes): **nouns, pronouns, adjectives, verbs, adverbs, prepositions, conjunctions** and **interjections**.

Most **parts of speech** can be divided into sub-classes. Prepositions can be divided into prepositions of time, prepositions of place etc. Nouns can be divided into proper nouns, common nouns, concrete nouns etc.

It is important to know that a word can sometimes be in more than one part of speech. For example with the word *increase*.

Increase can be a verb e.g. Prices *increased*

and *increase* can also be a noun e.g. there was an *increase* in the number of followers.

The eight main parts of speech in English are:

NOUN - (Naming word)

A noun is the name of a person, place, thing or idea.

Examples of nouns: Daniel, London, table, dog, teacher, pen, city, happiness, hope

Example sentences: Steve lives in Sydney. Mary uses pen and paper to write letters.

Types of Nouns

- **Common Nouns-** Common nouns are used to name a GENERAL type of person, place or thing. Common nouns can be divided into smaller classes such as countable and uncountable nouns, concrete and abstract nouns and collective nouns. Examples : girl, city, animal, friend, house, food
- **Proper Nouns-** Proper nouns are used to name a SPECIFIC person, place or thing. In English, proper nouns begin with a capital letter. Proper nouns do not normally have a determiner before them (e.g. the London, the Mary etc.) though there are some exceptions (e.g. Is she the Mary that we met at the conference?). Examples: John, London, Pluto, Monday, France
- **Compound Nouns-** Compound nouns are two or more words that create a noun. Compound nouns are sometimes one word (haircut), words joined by a hyphen (son-in-law) or as separate words (bus stop). The main stress is normally on the first part of the compound word (sunglasses, swimming pool) Examples: toothbrush, rainfall, sailboat, mother-in-law, well-being, alarm clock, credit card.
- **Countable Nouns-** Countable nouns are nouns that **CAN** be counted. They have a singular and a plural form and can be used with a number. Sometimes countable nouns are called count nouns. Examples: car, desk, cup, house, bike, eye, butterfly.
- **Uncountable Nouns-** Uncountable nouns are nouns that **CANNOT** be counted. These are sometimes called Mass Nouns. Uncountable nouns often refer to: substances: paper, wood, plastic, liquids: milk, oil, juice, gases: air, oxygen, abstract ideas: happiness, time, information. Examples: water, coffee, cheese, sand, furniture, skin, wool, gold, fur.
- **Collective Nouns-** Collective nouns are words that refer to a set or group of people, animals or things. Examples: staff, team, crew, herd, flock, bunch.
- **Concrete Nouns-** Concrete nouns are nouns which refer to people and things that exist physically and that at least one of the senses can detect (can be seen, felt, heard, smelled/smelt, or tasted). Examples: dog, tree, apple, moon, coin, sock, ball, water
- **Abstract Nouns-** Abstract nouns are nouns that have no physical existence and are not concrete. They refer to ideas, emotions or concepts so you **CANNOT** see, touch, hear, smell or taste something that is an abstract noun. Many abstract nouns are uncountable. Examples: love, time, happiness, bravery, creativity, justice, freedom, speed.
- **Gerunds-** A gerund, sometimes called a verbal noun, is a noun formed from a verb. Since all gerunds end in, -ing, they are sometimes confused as being a verb (present participle). Example: Running is good for you.

Here running looks like a verb because of its -ing ending but it is a noun (gerund) because we are talking about the concept of running, we are talking about a thing. Examples of gerunds: reading, writing, dancing, thinking, flying

PRONOUN - (Replaces a Noun)

A pronoun is used in place of a noun or noun phrase to avoid repetition.

Examples of pronouns: I, you, we, they, he, she, it, me, us, them, him, her, this, those

Example sentences: Mary is tired. She wants to sleep. I want her to dance with me.

ADJECTIVE - (Describing word)

An adjective describes, modifies or gives more information about a noun or pronoun.

Examples: big, happy, green, young, fun, crazy, three

Example sentences: The little girl had a pink hat.

VERB - (Action Word)

A verb shows an action or state of being. A verb shows what someone or something is doing.

Examples: go, speak, run, eat, play, live, walk, have, like, are, is

Example sentences: I like Woodward English. I study their charts and play their games.

ADVERB - (Describes a verb)

An adverb describes/modifies a verb, an adjective or another adverb. It tells how, where, when, how often or to what extent. Many adverbs end in -LY. Examples: slowly, quietly, very, always, never, too, well, tomorrow, here Example sentences: I am usually busy. Yesterday, I ate my lunch quickly.

PREPOSITION - (Shows relationship)

A preposition shows the relationship of a noun or pronoun to another word. They can indicate time, place, or relationship.

Examples: at, on, in, from, with, near, between, about, under

Example sentences: I left my keys on the table for you.

CONJUNCTION - (Joining word)

A conjunction joins two words, ideas, phrases or clauses together in a sentence and shows how they are connected.

Examples: and, or, but, because, so, yet, unless, since, if.

Example sentences: I was hot and exhausted but I still finished the marathon.

INTERJECTION - (Expressive word)

An interjection is a word or phrase that expresses a strong feeling or emotion. It is a short exclamation.

Examples: Ouch! Wow! Great! Help! Oh! Hey! Hi!

Example sentences: Wow! I passed my English test. Great! – Ouch! That hurt.