

## Effective Technical Communication

### Unit: 1 Dynamics of Communication

#### Introduction:

Our knowledge about when and how communication developed is widely uncertain. However the influence of communication on human history has always been remarkable. The story of communication in human history developed with the evolution of human. It began with simple signs and grunts of our ancestors and as the time passed we developed sophisticated communication. We painted the wall of the caves, lettered the stones and rocks, pressed signs and letters on clay tablet, inscribed on metal sheet, wrote on the bark of trees and today we write on paper. In all these techniques information was saved for a long period of time so that other people can use information to make their life better. Communication not only passes information to other people but also across the generations.

Today whatever knowledge or information we possess is actually we have received through communication in our life. Human communication, compare to animals, is so sophisticated that it can easily share abstract concepts and ideas among people. This remarkable ability of humans has always been shaping our life and gives meaning to it. in today`s world our life is replete with information, knowledge, ideas, concepts and from day to night we all share them with one another through various means of communication. In this way sharing of information (Communication) has always been a significant chapter of human history.

#### Concept of Communication:

Communication is basically a process of sending and receiving information between two or more people. It is a systematic effort/ attempt to share human experiences, thoughts, ideas, information and knowledge with other people. It includes activities such as listening, reading, writing, understanding, chatting, reporting, narrating, telling etc. The term “communication” is derived from the Latin word “communis” which means “common”. In this way communication refers to “make something common” or “share information and knowledge”.

#### Definition of Communication:

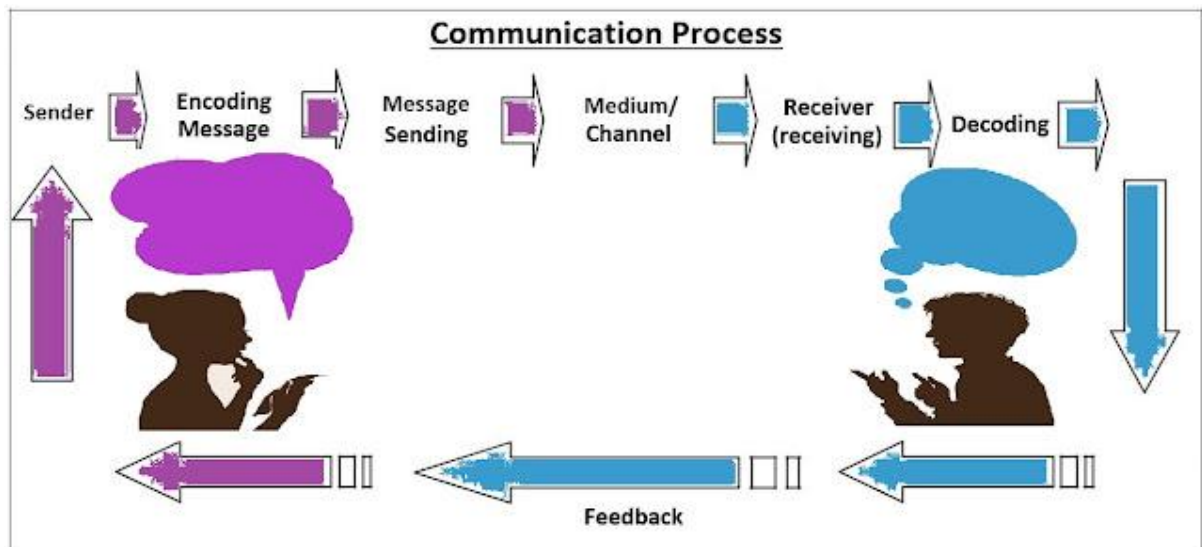
- “Communication can be defined as the exchange of information, ideas and knowledge between sender and receiver through an accepted code of language.”
- "Communication is the activity or process of expressing ideas and feeling or giving people information.
- "Communication is a two-way process wherein the message in the form of ideas, thoughts, feelings, opinions is transmitted between two or more persons with the intent of creating a shared understanding.

## Process of Communication:

These definitions of communications mainly reveals following characteristics of communication process.

- **Communication takes place between sender and receiver.**
- There is an **exchange of information** between them through medium.
- This **exchange is only possible through accepted codes of language.**
- **Communication is a two way process.**

The following figure shows how communication takes place between sender and receiver.



1. Sender
2. Encoding
3. Message Sending
4. Medium/Channel
5. Receiver
6. Decoding
7. Feedback

1. **Sender:** **Sender** is considered as **the origin of communication**. The sender has ideas, knowledge, information and thoughts to share with the receiver. These ideas are in abstract form in the minds of the sender. In order to share these ideas the sender has to give a physical or concrete shape in the form of commonly accepted codes i.e language.
2. **Encoding:** Sender, before sending the message, **convert the message (ideas) into commonly accepted language**. **This conversion is called encoding**. Through this process sender gives a concrete shape to his/her abstract ideas. This encoded idea is called message.
3. **Message Sending:** Once sender's idea is encoded, it is ready to move toward the receiver. In order to transmit the message the sender select an appropriate way.
4. **Medium/Channel:** In communication process **Medium/Channel is like a bridge between sender and receiver**. Through the medium message is transmitted and reaches to the receiver. The medium varies in different communication



environment e.g. in telephonic conversation electronic network is medium, in oral communication air is a medium, in whatsapp chatting internet is a medium. The process of communication is largely affected when the medium is disturbed by external factors such as noise.

5. Receiver: The recipient of the message is called Receiver. When message is sent using an appropriate medium, it is received by the receiver. Receiving of the message involves sensory and cognitive process which finally leads to understanding.
6. Decoding: Decoding plays a significant role in the process of communication. In this stage the message gets its original form i.e. ideas. Our human mind holds only abstract thoughts and ideas that is why encoded message is converted again into ideas. This process also involve cognitive aspect which finally leads to the understanding of the Sender`s message.
7. Feedback: Feedback is the last stage in which the receiver responds to the Sender`s message. This response by the receiver makes the whole process complete. Through feedback the Sender can judge whether the receiver has understood the message correctly. In the absence of feedback communication eventually withers.

Thus, for successful communication all these components are very essential and should work in coordination. Any defect or disturbance (Noise) in these components may result in miscommunication.

### **Verbal & Non-Verbal Communication:**

Communication is a systematic exchange of information between sender and receiver. Basically, there are two types of communication that we use in our day-to-day life namely; Verbal and Non Verbal Communication. Both types of communication serve the same purpose i.e. exchanging information through communication process. Let`s see what is verbal and nonverbal communication and how do they differ from each other.

### **Verbal Communication:**

In Verbal communication we exchange information with the help of words. In our life we use words of specific language to communicate. These words might be either in oral form or written form. In oral form we use spoken words for example talking with our friends, giving speech in function, scolding someone, delivering a lecture, instructing someone etc. In all these instances we use words to convey our message to others. In written

communication we use words in written form for instance writing a letter to someone, sending a job application, writing a paragraph, writing a report, notice, memo, email, proposal etc. Since Verbal communication (oral and written) uses words, it becomes very specific and to the point. In verbal communication it is very essential that both the sender and the receiver must have knowledge of the language that they use as a medium. Mainly verbal communication is very helpful in exchanging abstract and complex ideas and giving information in detail. It is said that humans learn from their past and they have tendency to record the past or history in both oral and written which is very useful to us. Through verbal communication it becomes very easy to pass on important information to the next generation. In this way verbal communication plays a significant role in our life.

### **Non-Verbal Communication:**

Contrary to verbal communication Non Verbal communication does not use words. Instead of words we use the language which has no words such as sign language, body language and posture, Paralinguistic, facial expression, gesture, eye contact, personal appearance etc. Since Non Verbal communication is wordless it is considered as 'Unspoken Communication'. In fact nonverbal communication is auxiliary to verbal communication. Surprisingly scientific studies say that Non Verbal communication carries 65 % of the social meaning of the situation, while 35% is carried on Verbal Communication.

Normally non Verbal Communication normally fails in exchanging technical, specific and detailed information. It is mostly used in face to face communication. Up to some extent Non Verbal communication is universal and so the sender and the receiver from the different cultures and countries can easily communicate with each other. For example nodding one's head has a positive (yes) meaning which can be understood by any person in this world. Since it depends on physical movements, it is ephemeral and this is why it fails in passing information to the next generation.

### **Types/Components of Non Verbal Communication:**

Non verbal communication does not use speech or words. Instead it simply uses the language which has no speech and words. This is why it is considered as 'Unspoken Communication'. In day-to-day communication human body plays a vital role. Through our body we express our thoughts without using word. This way of communication is known as Non-verbal communication. There are several types of Non-verbal communication which are as under.

Kinesics  
Proxemics  
Paralanguage

## I. Kinesics:

Kinesics is the study of the body movements. In other words it can be said that it is the way human body communicate without words. Kinesics includes following body movements:

### 1. Personal Appearance:

Personal appearance plays a key role in non-verbal communication. We can express many things through our appearance or outlook. Appearance includes clothes, hair style, jewellery, cosmetics, and so on. For example a person wearing an earring, heavy chains and torn jeans will create bad impression among people. This is because his appearance communicates the people and tells everything about the person.

#### I. Kinesics

1. Personal Appearance
2. Posture
3. Gesture
4. Facial Expression
5. Eye Contact



### 2. Posture:

Posture generally refers to the way we hold ourselves when we stand, sit and walk. A person's posture tells many things. For example: slumped posture indicates low spirit while erect or straight posture indicates high spirit, energy and confidence.

Study the following picture and find out which posture is good and which posture we should avoid.





### 3. Gesture:

Gesture includes the movements of hands, arms, shoulder, head, torso and fingers. Our gesture clarifies our ideas. During communication a person's gesture tells what is going on in his /her mind. We should avoid irritating gesture like playing with a ring, twisting keychain, clasping hands tightly and cracking knuckles etc at the time of communication.

In our day-to-day life we use gestures to reinforce verbal communication. Sometimes people use gestures when verbal communication is not possible e.g. in cricket umpire declares his decisions through hand gesture because on the ground it is impossible to give decision verbally due to lots of noise.

The following video shows how fighter pilots are guided by the Shooters using gestures on aircraft carrier.



#### **4. Facial Expression:**

Facial expression: Human face is considered as the best communicator. It is the most expressive part of human body. Facial expression includes raised eyebrows, forehead lines, smiles, movements of eye lid etc. for example smile stands for friendliness while a frown for discontent, lines on forehead for question, doubt etc.



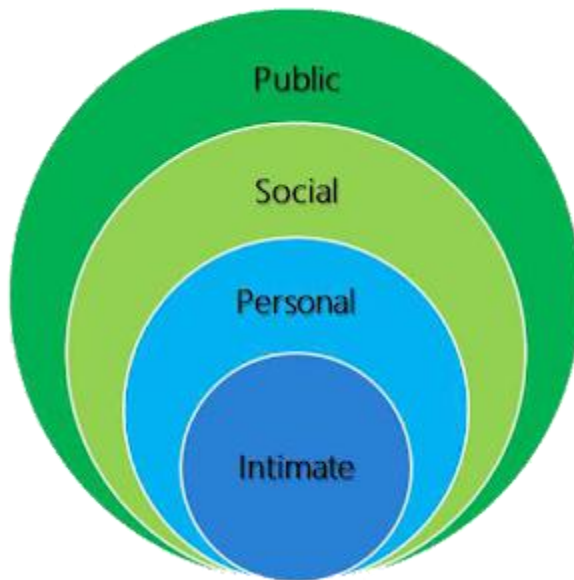
#### **5. Eye Contact:**

In our day-to-day life we express our emotions and feeling through our eyes. Our eyes reflect our sincerity, integrity, love and comfort when communicating with another person. It determines how we present ourselves and communicate with others. When we are confident we firmly maintain eye contact but when we have to hide something we cannot look into person's eyes. Our parents can easily learn through eye contact whether we lie to them. Two lovers can express many things just through eye contact. Thus practicing good eye contact is a skill for effective communication.



## II. Proxemics:

Proxemics is the study of physical space that people maintain to communicate Non Verbally. When we communicate with others we maintain physical space. This distance influences our behavior and also tells many things about us to other people. For example people maintain wide space, tells us that they would be stranger or the people maintain little distance suggest their intimacy. In our communication environment we use types of zones to communicate non-verbally.



**Intimate Zone (From 6 to 18 inches):** This is the zone a person guards as individual property. Only romantic partner, close friends and relative are allowed to enter in this zone.

**Personal Zone (From 18 to 48 inches):** This is the distance we keep from others during friendly interactions, social gatherings or parties.

**Social Zone (From 4 to 12 feet):** This is the distance we keep from strangers or persons with little acquaintance.

**Public Zone (Above 12 feet):** This is the comfortable distance we maintain while interacting or addressing to large group of people.

## III. Paralanguage:

Paralanguage refers to the pitch, volume, rate, quality, tone, intonation which conveys different meanings in persons' speech. Paralanguage always runs along with words and it refers to how words are spoken. For example when a person shouts a name of a person we can assume that the person is angry. Here person's intensity of voice conveys the meaning that he/she is angry.



### III. Paralanguage **1. Voice:**

1. Voice
2. Stress on words
3. Speed
4. Volume
5. Pause



Voice is the most important element of Para language. Voice tells us about the speaker's gender, age, background, education, temperament etc. Voice conveys the message in a more effective way. For example we can easily figure out whether the person is sick, unhappy or angry just studying his/her voice. Usually angry person speaks louder and his/her anger is clearly reflected in his/her voice. A sick person speaks very slowly and his/her voice is very low. Thus, how the person speaks tells a lot about that person.

### **2. Stress on Words:**



**I want YOU to vote**

When we speak we use stress to emphasize specific words in sentences. Stress on words usually refers to the way speaker stretches words to indicate their importance. For example when a teacher instructs that 75% attendance is **MUST**. Here the teacher has put stress on a word '**MUST**' which indicates that it is mandatory. The following sentences are made up of same words but their meanings are different. Here stress on different words changes meaning of the same sentences.

You should **NOT** go there.

**YOU** should not go there.

You should not **GO** there

You should not go **THERE**.

### **3. Speed:**



We all speak language at different speed rate. Usually men speak faster than women. Different speed rate indicates different meaning. For example in critical situation such as at the road accident people normally speak fast. Where message accuracy is very important people speak very slowly. For example while instructing someone people usually speak slowly. Rate or speed of the word also sometimes determines messages' seriousness and humor. For example in movie or drama character speaks very slowly which indicates the seriousness of the message. While comic characters usually speak fast to create humour among audience.

### **4. Volume:**

Research indicates that confidence, assertiveness, and boldness are reflected in louder speech. This doesn't mean that you go around speaking loudly but if you need to "raise the stakes" or occur more assertive, raising your vocal volume will help you to do this. For example at public speaking it is expected that the speaker should be louder and clear. Here speaker's clear and loud voice reflects the person's confidence. On the other end a person having low voice reflects lack of confidence and trust.

### **5. Pause:**

Pause refers to a break in speech either between words or sentences. It seems that pause is a moment of nothing but it has its own importance. The use of pause in language gives an artistic touch especially in narration, storytelling and reciting a poem. It is used as a tool to build intellectual and emotional connection with the audience. Pause allows the listener to think over before the next sentence is spoken. For example late Atal Bihari Vajpayee was well known for his pauses in speech and this made his speeches memorable and worth listening.

**Introduction:** The process of communication can be completed and effective when the message sent by the sender is decoded and responded properly by the receiver. The purpose of communication is to get a definite response. There are several factors which prevent the message from being properly conveyed. Even in the best communication systems there are some defects which become barriers to effective communication.

Communication is the lifeline of all business. Anything going wrong may cost the organization and it is worthwhile to study and know factors that causes communication breakdown.

➤ **External or mechanical barriers:**

**(i) Defects in the channel:**

It is very common that the device used for communication is defective and usually not within the control of the communicators. Thus, medium or channel may breakdown or suffer from disturbance and may not convey the message properly. In case of partial failure of the device the message may be incompletely carried out due to defect, which ultimately results into wrong feedback. In such case the postponement of transmission or communicating by an alternative method is the best way to overcome the barrier.

**(ii) Noise:**

Noise means ‘interference that occurs in a signal and prevents you from hearing sounds properly.’ For example in a factory the noise made by machines makes oral communication difficult in other situations a telephone or television cable may distort the sound signal and affect communication. Organizations which can afford sound-proof rooms can overcome this barrier up to some extent.

**(iii) Defects in the organization and communication system:**

Organizations cannot operate without communication. Communication is the life source of organizations because organizations involve people. People cannot interact with each other without communication. Organizational barriers include poor organizational culture, climate, regulations, relationship, complexity, insufficient facilities.

Within the organization, the movement of papers and of information may be delayed by the system itself because at each level, they are edited, interpreted and explained before being passed on. This can result in communication gaps. In any organization there are two main internal patterns of communication, upward and downward communication. In upward communication, subordinates tend to send up only such information as will show them in a favorable light. Now their judgment as to what is important and ought to be sent up may not always be reliable. In downward communication, the loss of information is even greater as compared to upward communication.

To overcome this barrier, every organization should constantly evaluate its system of internal communication. An organization should make sure that there are no delays in passing on of information.

➤ **Socio-Psychological Barriers:**

People have personal feelings, desires, fears, likes and dislikes, attitudes, views and opinions. Some of these are formed by family background and social environment; some are formed by education and personal experiences. Such factors form emotional filter around the mind and influence the way we respond and communicate with others. Factors like the time, the place and the circumstances of a particular communication also influence our understanding and response. In order to understand these barriers one must know how we deal with received message at three levels:

**(i) Perception:**

Perception is at physical level. Receiver perceives the message with the help of his senses. It means that if his eyes and ears are not very much alert, the message may either be partially perceived or may not be perceived at all by the receiver.

**(ii) Understanding:**

Understanding is at the level of intelligence. It is quite possible that the language and symbols used by the sender may not be intelligible to the receiver. In such a situation the receiver will not be in a position to decode the message properly.

**(iii) Acceptance:**

Acceptance is at the emotional level. The receiver may perceive and also understand the message but if he has any kind of emotional block the message may not make any impression on him. A message received when we are emotionally not well, it will have a different meaning for us than when we are calm.

➤ **Cultural barriers:**

Culture is a shared set of values and characteristics of a group; it is the sum total of the ways of living by a group. Culture is so much a part of an individual's manner of talking, behaving and thinking, that communication style and competence are influenced by it. Cultural differences often come up as communication barriers. One has to be especially careful in this regard as now one has to operate in international environment. The same category of words, phrases, symbols, actions, colours mean different things to people of different countries or different cultural backgrounds.

• **Language barriers:**

Language is a very complex thing, and communication between people speaking different languages is difficult. Even skilled translators can find it tricky to convey complex emotions and concepts, which can lead to misunderstandings. For example when the Japanese say "yes" they mean "yes, I am listening" and the Americans may take it to mean "yes, I agree".

• **Hostile stereotypes:**

Inaccurate and hostile stereotypes of people from other places can be a barrier to communication in the workplace. Stereotypes are assumptions people make about the traits of members of a group. For example, a stereotypical American is thought to be impatient and

arrogant as well as friendly and tolerant. But entering in such stereotypes may lead to this barrier as this stereotype may not be applicable to all Americans. Not all Americans are impatient and arrogant, nor they all friendly and tolerant.

- **Emotional display:**

What is considered an appropriate display of emotion can differ from culture to culture. In some countries, displaying anger, fear or frustration in the work place is considered inappropriate in a business setting. People from these cultures keep their emotions hidden and only discuss the factual aspects of the situation. In other cultures, participants in a discussion are expected to reveal their emotions. One can imagine what misunderstandings can arise if a business person displays strong emotion in the company of employees who feel that such behaviour is out of place.

- **Behaviour differences:**

Behavioural differences between employees of different cultures can cause misunderstandings. Every culture has guidelines about what is considered appropriate behaviour. For example in some cultures, looking someone in the eyes when they are talking to you is considered rude, while in other cultures not doing so is considered disrespectful. Likewise, in some cultures, people talking to each other give each other space, while in other cultures, they stand close. These differences can be barriers to effective communication if they are not recognized.

- **Semantic Barriers:**

Semantics is the systematic study of different meanings of words or other symbols. Most of the communication is carried on through words, whether spoken or written. As words have multiple meanings they are capable of communicating variety of meanings. It is quite possible that the receiver of a message does not assign the same meaning to a word as the sender had intended. This may lead to miscommunication.

Just look into a good dictionary and see how many meanings you can find for some commonly used words like charge, spring, check, suit, and ring. The meaning that comes to your mind first depends on your occupation. For example, 'Charge' may mean electrical charge to an engineering student, but fee/rent to a commerce student. Some words like present, transfer, record are used as verb and as noun with a difference of stress in speaking, but no difference in spelling.

Similar sounding words like 'access' and 'excess', 'flour' and 'flower' can cause misunderstanding in speech. Many people confuse 'week' and 'weak', 'steal' and 'steel' in writing.

Emotional and cultural attitudes towards something can remind different responses in people. For example, 'dog' will evoke responses according to person's past experience with the animal as well as cultural attitudes towards the animal. Phrases can be trickier; 'a red and a blue carpet' signifies two carpets: one red and one blue. 'A red and blue carpet' is one carpet in two colours.



Technical terms can be a barrier to communication. Such terms are limited to the group of persons who work together or work in the same kind of occupation; they need to use technical terms in their works. Often, these words have other meanings in ordinary language, and are differently understood by people who do not belong to that occupational group. For example, the people who are not familiar with computers, 'mouse' is only an animal for them.

Semantic barriers arise when the communicators' experience with words differs. Words from one environment are taken out and put into an environment where they don't fit, when complex phrases and long constructions are used. It is said, "Meaning is in people, not in words." Age, education, cultural background and many other factors influence the meaning we give to words.

➤ **Sender and Receiver oriented barriers :**

- **Sender oriented -**

**(i) Badly expressed message:**

If the sender is not well versed in the topic under discussion, it can create such problems. To overcome this barrier the sender should have concrete ideas in his mind.

**(ii) 'I-Attitude':**

If the entire piece of communication is dominated by I-Attitude, it would fail to appeal to the receiver.

**(iii) Loss in transmission:**

Communication often suffers or gets diluted when messages pass on from person to person in a series of transmissions.

**(iv) Over/ under communication:**

The quantum of communication should be just right. Excessive information may confuse the receiver. Similarly under communication would lead to miscommunication.

- **Receiver oriented –**

As it is known that communication is a two-way process. Communication process will not be complete till both the communicators contribute to it. The following receiver-oriented barriers can negatively affect the communication process.

**(i) Poor retention:**

If the receiver has poor retention, it would affect the communication process. If the receiver is aware of this shortcoming he should jot down points.

**(ii) Inattentive listening:**

If the receiver is not interested in what is being said and has other things to concentrate, he would be rather inattentive, which affects the communication.

**(iii) Resistance to change:**

Some people are not open to new ideas. They are even not ready to discuss matters that intend to bring about change. Such people create barriers to communication.

**(iv) Differing status and position:**

Generally it is believed that juniors cannot come up with novel ideas. This barrier hampers communication process. Communication is very much essential for smooth functioning of any organization. This can be done by encouraging juniors to come up with new ideas.