UNIT 2  THEORIES OF COMMUNICATION

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2.0  OBJECTIVES

The purpose of this unit is to give you an overall view of communication, of various communication processes including those used in education, and of a few theories of communication.

After having worked through this unit, you should be able to:

- define communication,
- list the purposes and types of communication,
- describe how the process of human communication takes place,
- describe the process of educational communication,
- identify different theories of communication, and
- describe their educational implications.

2.1  INTRODUCTION

Within the framework of a social set-up, human beings interact with each other through communication. So 'communication' has been termed as the fundamental social process. Any discipline or field of study that deals with human society and human behaviour is necessarily concerned with this process.

The sub-system of education functions within a broader system — that of society. To understand human behaviour for effective teaching and learning, it is necessary to understand the processes of human communication.

Education is also a process of communication between the individual and
society, communicating desirable social standards and human knowledge from the latter to the former over a period of time.

In distance education too (though it takes place outside the classroom) teaching-learning takes place between the distance teacher and the distance learner through the process of mediated interaction and other means employed by the system. So, to understand and improve upon this two-way communication for effective learning, it is important to study the processes of communication and a few theories that have direct or indirect bearing on the disciplines of education and distance education.

Having discussed the theories of learning in the previous unit, we now turn to theories of communication in order to form a relationship between the two and to subsequently see how they influence the design and development of self-learning materials.

### 2.2 COMMUNICATION

The earlier meaning of communication (derived from the Latin word 'communicare'—means 'to make common') has undergone many changes, which have made its meaning broader and more complicated. For example, Theodorson and Theodorson (1969) stated that communication as a process of transformation of information ideas, attitudes or emotions from one person or group to another or others primarily through symbols. Schramm, (1971) conceived of communication as a process of transferring feelings, motivations, ideas and knowledge from one mind to another, in a way in which the receiver was seen as a passive agent.

But the latter concept of the audience as passive listeners appears to be baseless, since as some of them may well refuse to accept what is forced on them. And it is actually only the message and not the idea or thought that passes from the sender to the receiver. At times the message may result in change of behaviour in the receiver which was not intended by the sender.

However, the meaning that we want to derive from this definition is that communication is a process of conveying and imparting ideas and knowledge whereby there is a transfer of messages as well as ideas from one mind to the other(s) with the help of signs (through sight) and sounds (through hearing).

Another set of definitions stresses the influence of a system and/or mind on the destination and/or another mind. This influence is carried out by manipulating the alternative signals that are transmitted through the channel. The sender is free to use any signal which s/he thinks would influence the receiver. These signals not only cover speech - written and oral - but also pictures, music, theatre, and almost all human behaviour. For example, in a theatre show, the characters/artists manipulate various signals (e.g. speech, postures, gestures, etc.) to both entertain and influence the minds of the audience. In a broader sense, communication is the procedure by means of
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which one mechanism affects another mechanism. The stress here is on influence rather than a transfer. The human relationship approach views communication as the mechanism through which human relations exist and develop.

Schramm (1971), a noted communication theorist, views it differently saying “it is the sharing of an orientation towards a set of informational signs”. Information refers not only to facts/news or whatever is taught in the classroom, but also any content that reduces uncertainty or the number of alternative possibilities in a situation”. It includes facts, opinions, guidance, persuasion and even emotion communicated through ‘silent language’. This communication is based on a relationship between at least two bodies - humans, animals or even machines - that are ‘in tune’ with each other. This relationship may not be a face-to-face one. For example, in the case of mass media there is no direct contact between the two agents of communication.

But the quality of communication in direct contact differs from that in indirect or mediated contact. Communication makes connections between persons through various forms or media. We shall touch upon these connections in sub-section 2.2.4. You will find that communication is an activity which is not limited to any static condition. We ‘learn’ how to communicate, and for this learning we use communication itself. This is the process that goes on in schools and colleges everywhere.

2.2.1 Types of communication

The experience of communicating can be divided into four categories based on the number of people involved in this act, viz., intra-personal, inter-personal, group, and mass communication.

Intra-personal communication

This refers to a process when one communicates with one’s own self. Such communication is within the self and to the self, e.g., thinking, working out a problem, writing diaries, etc. (Holmberg, 1981).

Inter-personal communication

This is the communication that takes place when at least two people interact, whether face-to-face, e.g., an interview, talking to friends in a café, or otherwise, as with a telephone conversation etc. In this case, emphasis is laid on speech as well as on non-verbal forms of communication.

Group communication

By group communication we mean communication within and between groups of people. The groups may be small, such as a family, or large, as in the case of a committee meeting.
Mass communication

In this case the communication is received by or used by large numbers of people, e.g., an open-air concert for a thousand people, radio and postal systems, etc.

Whatever the type of communication, its purposes are more or less similar. Given below is a brief account of the various purposes of human communication.

2.2.2 Purposes of communication

Every type of communication has a purpose behind it. Such purposes are related to certain needs, and they may be conscious or unconscious. In face-to-face communication, for example, the verbal forms of communication reveal conscious purposes, and the non-verbal forms express unconscious purposes.

Communication may be intentional or unintentional. It is unintentional when, for example, Mr. A’s words hurt Mr. B though the former did not intend to hurt the latter.

Some of the purposes of communication are to

- give, get or exchange information,
- use communication to form or to maintain relationships,
- persuade others to think in the way that one does, or to act in the way one wants,
- gain, maintain or exert power over others,
- make decisions about what we think and do,
- express our ideas and ourselves to others, and
- make sense of the world and our experience of it.

Check Your Progress 1

i) Define the broader meaning of communication. Your answer should be 7 or 8 lines long.

ii) Distinguish between inter-personal and intra-personal communication with the help of at least two examples.

Note: a) Space is given below for you to write your answers.
   b) Compare your answers with those given at the end of this unit.
2.2.3 Processes of communication

It is worth noting that the process of communication depends on the different functions it serves, and variations in the process of communication are due to the varied functions/purposes for which it is used. Schramm (1971) writes, "Essentially the communication process consists of information-processing organised around a shared orientation to certain signs". When information is not communicated properly, it does not bring the desired results. So, it is important to study the process of communication and the various models used to understand and/or to explain it. We shall here discuss three models that explain the processes of communication, ranging from simple to complex activities.

The process of communication requires two or more participants, one sends information and the other receives it. This is the simplest model of communication called the 'Linear Model of Communication' (Dimbleby and Burton, 1985), in which the sender sends messages to the receiver through one or the other channels. Look at Figure 1 given below:

![Linear model of communication](image)

**Fig.1: Linear model of communication**
Theories of Communication

The message is carried out with the help of some codes (like verbal or non-verbal signs) which are decoded by the receiver. In this simple process of communication, any complex human behaviour is not overtly expressed.

But communication is not always a one-way process, rather it is usually a two-way process where two persons interact with each other, and either one or both of them encode and decode. Let us examine the communication model of Shannon and Weaver (1949) that was originally applied to develop electrical systems and is now applied to human communication. (see Figure 2 below).

![Fig 2: Engineering model of communication](image)

We shall illustrate this model with the help of an example. The input is the event that provides a stimulus, for example, through the sensory organs. Suppose A receives such a stimulus, the resulting nervous impulses reach the brain causing reactions and preverbal feelings. According to the accustomed verbal patterns s/he translates them into words. S/he then selects some words and speaks to B and conveys his/her reactions by means of sound and light waves; the reaction in terms of nervous impulses travels to B’s brain, then to his/her muscles and glands that produce reactions and preverbal feelings. He/she translates those feelings into words according to the verbal patterns which he/she is accustomed to. After selecting or abstracting some of those words, he/she arranges them in some fashion and speaks either to A or to somebody else and thereby offers a stimulus to him/her. The process of communication goes on in this way. This is called the Exchange Model of Communication (Osgood, 1954) or the Engineering Model of Communication (Shannon and Weaver, 1949) in which both the sender and the receiver are active agents during the process of communication.

The contextualised model or linear model of communication with a context and feedback (see Figure 3) is an extension of the exchange model when the dimensions of the situation or surroundings are added to the above process. The process between the sender and the receiver also has another dimension — that of feedback.
All the processes of communication may not necessarily achieve the predetermined purpose (of the sender of the message). Communication becomes *dysfunctional* when it fails to achieve its purpose. It may fail because of one or more of the following possibilities:

- Mutual attention is not paid adequately
- The receiver fails to understand the meaning of a communication in the way the sender intended
- The two parties do not have clear-cut common communication goals, and
- Emotional disturbance affects either party.

But in *effective* communication:

- The sender *rightly uses the symbols/signs* to properly and effectively communicate what he/she wants to communicate,
- The receiver *gets the meaning* correctly from the symbols/signs of the sender,
- The receiver *responds correctly/appropriately*, and
- The process of communication is flawless.

After learning about the processes of communication, we need to know something about the important technologies involved in the process of communication.
Check Your Progress 2

State, in about five lines, in what way the engineering model of communication is an extension or an improvement over the linear model of communication.

Note: a) Space is given below for you to write your answer.
    b) Compare your answer with the one given at the end of this unit.

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2.2.4 Technologies of communication

To accomplish pre-determined ends in the process of human communication, a wide-ranging series of techniques and technologies are used. Human beings have invented and used technologies to communicate amongst themselves and with animals, ‘human language’ being one of these technologies. These technologies are peculiarly interdependent. We discuss here some of the important technologies of communication.

Imitation

Human beings imitate the behaviour of others. This process is purposeful, since it allows for the exchange of experiences. Human beings decide upon the purposes of their imitation and use specific techniques for communication like gestures, inchoate language, etc.

Symbols

Symbols constitute a significant means of communication. Some of the most important of these are the use of metaphors, similes, icons, etc. Through symbols, one is able to communicate one’s thoughts and perceptions adequately to others.

Language

Written and spoken languages transmit meaning through their use of words, sentences, and grammars. The technique of language use has itself become an important field of study. Various disciplines like linguistics, philology, semantics, phonetics, etc. have emerged to deal with the skills of mastering verbal and written languages, the commonest means of communication.
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Print

The invention of the technology of writing in languages using phonetic, ideographic and pictographic symbols greatly contributed to facilitate human communication. Subsequently, print enabled one person/group to communicate with another person or a group of persons on a large scale. Print in the form of books has great potential to communicate the ideas of the writer/author to relatively larger number of readers, and it is more effective for purposes of persuasion than many other techniques are.

Motion pictures

Motion pictures constitute a strong communication technology as they help communicate more effectively by creating impressions that become permanent in the minds of the viewers.

Broadcasting

The technological revolution of the nineteenth century gave birth to the technique of broadcasting. Radio broadcasting was followed by television broadcasting. Broadcasting through both radio and television is one of the most developed mass communication technologies of today, serving even larger audience than the group communication techniques can address.

2.2.5 Educational communication

Education has long been considered a communication process which links individuals and the society in which they live. In this process, the knowledge, values, skills and standards of the society are communicated from generation to generation. Now let us examine how educational communication takes place (please turn to Figure 2).

In educational communication, the input is knowledge, skills, standards and values of a society provided in a particular subject matter, and this input is supplied and managed by the teacher. When s/he puts forth facts, ideas, attitudes, statements, etc. coding takes place, as messages are encoded into sound, visual images, printed words and non-verbal messages. So coding is the process of making the desired input visible and/or audible to the learners. The channels of communication are the sound signals or the visual signals produced by the teacher, chalk and board or even the audio-visual signals that accurately and clearly convey the message to the learners.

Noise is something that disturbs or interrupts the communication. The main source of noise in the classroom, for example, is the teaching environment, consisting of the furniture, chalk and board, and even the colour of the wall and the voice quality of the teacher. A higher teacher-learner ratio also creates an obstacle to learning as does the teacher when s/he is not clear about her/his purpose. The learners decode the message, and the output depends upon the learners' previous knowledge of the subject being taught,
skills of note-taking, ability to use books and to extract information, etc.

The learner is central to educational communication. Feedback from the learner to the teacher plays an important role in regulating the channels of communication, and in enabling the teacher to reduce obstacles or disturbances and to vary the input to suit learner needs.

2.3 COMMUNICATION THEORIES

After having studied the meaning, the process, and the techniques of communication, it is reasonable to examine various theories of communication which are directly or indirectly related to education and particularly to distance education. As mentioned earlier (in section 2.2 of this unit) education is a process of communication and to understand this process for its further development it is necessary to study the relevant theories of communication. We do not intend to propagate those theories nor shall we explain them from the viewpoint of the discipline of communication. Rather we shall touch upon such aspects of these theories as have relevance to educational practices.

What follows is a brief description of four theories — two of which are directly related to education (viz. mathematical theory, and information theory), and two of which have only an indirect bearing on education (viz. free press theory and social responsibility theory). Besides, we shall discuss their educational implications. Before going through these theories, let us go through the activity which is given below.

Check Your Progress 3

Imagine that you are a teacher teaching in a classroom. Describe, with the help of an example, how communication takes place between you (the teacher) and the learner(s).

Note: a) Space is given below for you to write your answer.
   b) Your answer should not be more than ten lines.
   c) Compare your answer with the one given at the end of this unit.
2.3.1 Mathematical theory

The early theoretical bases of communication owe much to the views held by Shannon and Weaver (1949). Known as the mathematical theory of communication, their views are based on developments in electrical systems and electronics. For them, the main channels of communication were telephone cables and radio waves. The communication process is divided into components like the source, the transmitter, the signal and the receiver.

Now, look at Figure 2 again on page 49. A message is converted into a signal suitable for the channel to be used. The channel is the medium that sends information from the sender to the destination by means of signals. For example, in a conversation the sender’s brain is the source; the voice mechanism produces signals through spoken words and transmits it through air (the channel) and the receiver decodes the message from the signals.

Though originally applied to the fields of engineering and mathematics, this theory has been widely applied to the broader field of human communication. This mathematical theory of communication has greatly influenced present day educational thought and practice. We may examine a few of its educational implications as follows.

Educational implications

In the processes of teaching and learning, information is passed on from the teacher to the learners. Usually one teacher may communicate with 50-60 learners at a time. In larger classes s/he may communicate with 100 learners. Thus the number of people involved in a particular situation of educational communication could not be more than say 101 persons. The mathematical theory of communication helped in enlarging this number, as it helped in improving the electronic media through which information could be distributed to large populations and so the monopoly of a few in relation to educational transactions was successfully overcome. With the help of developed communication technologies, information became more widely used and effective. Besides print material, other mass communication technologies like radio and television broadcasting came to be used for quick transmission to the audience/learners. Moreover, video and computer technologies have questioned the role of the teacher as the sole authority in the teaching-learning process. Now, satellite technology has considerably overhauled and improved the process of instructional technology.

2.3.2 Information theory

The mathematical theory gave birth to the information theory of communication which views communication as the procedure through which one mind affects another mind or, to put it differently, the procedure for conveying a message meaningfully to the person for whom it is meant. It is a theory of transmitting signals, viz., written language, spoken words, body movements, etc. At the source one message is selected out of the many available ones in any of the available forms to be transmitted to the
receiver. Provision is also made for feedback in many forms that flows from the destination back to the source, helping the communicator correct the subsequent output.

The term 'message' or 'information' is not confined to news or facts, or to whatever is taught in the classroom, but also covers any content that reduces the uncertainty and disorganisation of a situation. As we mentioned earlier in section 2.2 of this unit, it may even include opinion, emotion, motivation or persuasion. It even goes beyond words to include silent gestures which are called ‘forms’.

This theory emphasises communication networks in which data are organised, ordered and related and such similarities and connections are shown as had previously not been perceived. Physical tests can be applied to verify predictions. This theory is heuristic, for it has led to new and previously unknown facts and methods.

Chute (1987) adapted the Shannon-W eaver model by adding examples of message transmission media. While retaining the basic form of the communication, Chute suggested that various media could potentially serve as the ‘source’ in a communication process. Chute’s model is perceived as the initiator of interactive communication. Wagner (1994) stated that the models developed by Schramm and Chute can be used to help distance educators to conceptualise the mechanics of interactive telecommunication.

**Educational implications**

The information theory of communication has greatly contributed to the process of teaching-learning in terms of the effect of the teacher (or even of print materials) on the minds of the learners, and the process of feedback being provided by the learners to the teachers to improve teaching, and also by the teachers to learners for effective learning. Feedback in the classroom can take many forms including negative ones such as puzzled looks or signs of boredom like yawning which inform the teacher that the point at issue needs further clarification or that it is time to move on to another topic, or perhaps to stop teaching for the moment. Similarly, feedback in the case of distance education should be used to improve upon all the subsystems — administrative, academic and industrial.

**2.3.3 Free press and social responsibility theories**

These theories indirectly influence the system of education in terms of the sociology of education. The free press theory originated from the libertarian theory of Siebert and others, which emphasised the freedom of printing press and its liberation from official control in the seventeenth century, and this is considered the main legitimising principle for print media in liberal democracies. Simply, this theory says that an individual should be completely free to express himself, and should not be forced to suppress his/her feelings and emotions. S/he is free to give information to
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the press and to publish whatever s/he likes. This is one of the fundamental human rights.

People are free to express themselves as long as that expression does not harm others, and the press is a means of arriving at the truth. Control of the press leads to the hiding of facts. On the other hand, the press is to be made free to the extent that it does not go against the nation. It should be free from unreasonable censorship but must be answerable to law.

Educational systems are indirectly influenced by this theory, in the sense that it helps the system of education through free press to bring the reality close to the learners in a learning society (see ES-31), and to make them aware of their rights as well as responsibilities. The aim of education is to bring about the socio-economic and political development of the nation, and a free press accelerates this process.

The social responsibility theory originated from the ‘Commission of Freedom of the Press’ in the United States. This theory demanded that the media - print and broadcasting - have a social responsibility and must be answerable to society through various kinds of democratic procedures. It reconciles three divergent principles, viz., (i) individual freedom and choice, (ii) media freedom, and (iii) media obligation to society. Media is to be self-regulating within the legal framework of a nation along with its obligation to society, and it should avoid anything that might lead to violence or communal disturbances.

The contribution of this theory to education can be summed up thus: education tries to develop moral ideas and values among individuals, to provide more and correct information to them and to ensure progressive social development; and in this task the social responsibility theory of communication helps much in terms of media responsibility in transmitting correct information to all citizens who are learners and in the process of developing their moral values.

Check Your Progress 4

‘Free Press theory of communication can indirectly contribute a lot to the spread of education in any nation’. Do you agree with this statement? Give reasons.

Note: a) Space is given below for you to write your answer.
       b) Try and match your answer with your day-to-day social experiences.

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In this unit, you have studied about the various meanings of communication. Broadly, communication means imparting, conveying or exchanging ideas, knowledge, etc. In other words, it implies the transfer of information from a source to a receiver. It also includes all the procedures by which one mind affects another through oral speech, written word and almost all human behaviour.

We have seen that education itself is a process of communication. Two important theories, viz. mathematical theory and information theory of communication have a direct bearing on the practice of education. You have also studied two other theories, viz. free press theory and social responsibility theory which have an indirect bearing on education in the sense that they point to the significance and need for democratising education, and contribute to the concept of ensuring equality of educational opportunity.
### Check Your Progress : Possible Answers

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| 1) | i) Communication simply means conveying or transferring ideas and feelings from the sender to the destination. In a broader sense, it is the willing interaction between the source and the receiver by means of symbols and signs - verbal or non-verbal, face-to-face or mediated. All along, a relationship is maintained between the two parties through feedback.  
   
   ii) There is intra-personal communication when, for example, learners without interference from anyone else work out or solve a problem in mathematics on their own. But it is extended to inter-personal communication when the learner has a friend helping him/her solve the same problem at every stage.  

2) In the engineering model of communication both the sender and the receiver ‘act’ and the former is kept in touch through feedback given by the latter. Feedback is absent in the linear model of communication.  

3) A teacher, while teaching in the class, may put a question to Miss. B. This ‘coding’ takes place with the help of the ‘channel’ of verbal sounds/words. Miss B ‘decodes’ it and replies that she could not understand the content of the question. This works as a ‘feedback’ to the teacher, as a result of which he again puts the question to her in simple and clear language. This time Miss B understands the question and gives the correct answer. This is one form of communication that takes place in the classroom.  

4) It is an open ended question. However, we shall be answering this in unit 3 (Section 3.3) of this block.