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M.E.S.-115

Communication Technology For Distance Education

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By: Kshyama Sagar Meher



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**Sample Preview
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QUESTION PAPER

June – 2023

(Solved)

COMMUNICATION TECHNOLOGY FOR DISTANCE EDUCATION

M.E.S.-115

Time: 3 Hours]

[Maximum Weightage: 70%

Note: All questions are compulsory. All questions carry equal weightage.

Q. 1. Answer the following question:

Explain Romiszowski's scheme of media classification. Describe the application and use of media in the Distance education.

Ans. Ref.: See Chapter-5, Page No. 61, Q. No. 2 and Page No. 53, 'Applications and Use of Media'.

Or

What are the strengths and weaknesses of video programmes? Discuss how they are used in distance education. Give examples.

Ans. Ref.: See Chapter-7, Page No. 80, 'Strengths of Television', 'Limitations of Television', Page No. 83, 'Strengths and Weaknesses of Video Cassettes' Future Trends in Educational Television'.

Q. 2. Answer the following question :

What are the specific uses of communication technology in distance education? Discuss the problems of applying communication technology in Indian context.

Ans. Ref.: See Chapter-3, Page No. 29, 'Uses of Communication Technology' and Page No. 30, 'Applications of Communication Technology: Problems'.

Or

What is meant by Computer-Assisted Learning (CAL)? Differentiate CAL from Computer Managed Learning (CML) and Computer Based Training (CBT).

Ans. Ref.: See Chapter-15, Page No. 147, 'Computer-Assisted Learning (CAL)' and Page No.

148, 'Computer Managed Learning (CML)' and 'Computer Based Training (CBT)'.

Q. 3. Answer any four of the following questions:

(a) Explain the various stages of studio recording.

Ans. Ref.: See Chapter-12, Page No. 132, 'Studio Recording'.

(b) Describe the advantages of computer networking.

Ans. Ref.: See Chapter-15, Page No. 173, 'Advantages of Computer Networking'.

(c) Describe barriers to communication.

Ans. Ref.: See Chapter-1, Page No. 6, 'Barriers to Communication'.

(d) Describe the variables that are considered for analysing the cost of audio-cassettes programmes.

Ans. Ref.: See Chapter-6, Page No. 72, 'Cost of Audio Cassettes/Programmes'.

(e) Write a short note on Growth of Internet.

Ans. Ref.: See Chapter-15, Page No. 175, 'Growth of the Internet'.

(f) Explain the basic lights used for indoor shooting of a TV programme.

Ans. Ref.: See Chapter-12, Page No. 127, Q. No. 4.

Q 4. Answer the following question:

Explain the meaning and types of teleconferencing. Describe the stages that you would follow while organising teleconferencing session.

Ans. Ref.: See Chapter-14, Page No. 162-163, 'Teleconferencing'.

■■

QUESTION PAPER

December – 2022

(Solved)

COMMUNICATION TECHNOLOGY FOR DISTANCE EDUCATION

M.E.S.-115

Time: 3 Hours]

[Maximum Weightage: 70%

Note: All questions are compulsory. All questions carry equal weightage.

Q. 1. Answer the following question:

Describe the role of educational television in the context of distance education. Discuss how it can be utilised effectively in distance education in future.

Ans. Ref.: See Chapter-7, Page No. 80, 'Potential of Educational Television', Page No. 83, 'Future Trends in Educational Television'.

Or

Explain the concept and means of communication. Discuss how different means of communication play an important role in distance education.

Ans. Ref.: See Chapter-1, Page No. 1, 'Communication: The Concept'.

Q. 2. Answer the following question:

Describe major strands of television production.

Ans. Ref.: See Chapter-8, Page No. 92, 'Major Strands of TV Production'.

Or

What do you mean by media selection? Describe the criteria for selection of media for distance education.

Ans. Ref.: See Chapter-5, Page No. 54, 'Media Selection', Page No. 57, 'Bates, Criteria for Decision Making'.

Q. 3. Answer any four of the following questions:

(a) Describe the advantage of teleconferencing in distance education.

Ans. Ref.: See Chapter-14, Page No. 163, 'Advantages of Teleconferencing'.

(b) Explain the various stages of video recording.

Ans. Ref.: See Chapter-12, Page No. 132, 'Studio Recording', Page No. 135, 'Field/Location Recording'.

(c) Describe the important points to be considered while planning and producing the audio-cassette programmes.

Ans. Ref.: See Chapter-6, Page No. 72, 'Designing, Programmes on Audio Cassettes'.

(d) Describe the procedures of post-production editing.

Ans. Ref.: See Chapter-12, Page No. 136, 'Editing'.

(e) Mention the features of World Wide Web.

Ans. Ref.: See Chapter-15, Page No. 177, 'World Wide Web'.

(f) Differentiate between Satellite and Terrestrial Communications.

Ans. Ref.: See Chapter-14, Page No. 160, 'Satellite versus Terrestrial Communication'.

Q. 4. Answer the following question :

Identify a topic for an educational video programme. Describe the steps you will follow while developing the same video programme.

Ans. Ref.: See Chapter-8, Page No. 93, 'Programme Production Process', Chapter-11, Page No. 121, 'Production Planning', Scheduling and Execution'.



Sample Preview of The Chapter

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COMMUNICATION TECHNOLOGY FOR DISTANCE EDUCATION

BLOCK-1 COMMUNICATION TECHNOLOGY : BASICS

Issues in Communication



INTRODUCTION

Communication is a part of all human activities. The effectiveness of communication is becoming more and more important in social interactions and specifically, in educational institutions. The concept of communication, especially educational communication and the process of communication will both be covered in this chapter. Additionally, an effort has been made to connect the idea of general communication with education in general and communication in remote education, in particular. In this chapter, we will study issues related to communication and related aspects of educational communication.

CHAPTER AT A GLANCE

COMMUNICATION: THE CONCEPT

There are numerous ways to define communication. Some claim it is a science—a learned behaviour or skill—while, still others describe it as an art—something creative. Broadly speaking, communication encompasses much more than just art. Due to the fact that it requires a number of teachable techniques and psychomotor skills, it is a combination of a skill and a science. However, because it is founded on certain principles that can be tested and applied to make it effective, communication is best characterised as a science. Here, we assume that communication is a field of study that yields experts in the field. In order to find a scientific explanation for the concept of communication, we will examine communication as a science.

People interpret communication differently depending on the context, provided by the varied locations or surroundings, where communication takes place. Communication has been defined to meet situational needs, ranging from the sharing of meaning to convincing others to elicit the required planned responses.

Three components make up communication are the source, the channel and the receiver. According to the source, persuasion is at the heart of communication. As a communicator, she/he feels certain that the conversation occurred or that the anticipated results were obtained. Communication, from the perspective of the receiver, is a procedure to elicit the intended reactions. If the recipient acts in the manner that you expect, the source will be pleased. Communication is a medium, a carrier of information from the source to the receiver and/or vice-versa from the perspective of the channel. As a result, communication is defined in terms of the tasks to be completed or the goals to be attained.

According to Shannon and Weaver (1949), the primary concern of communication is to reproduce as faithfully as possible a message sent from one place to another place. On the basis of different explanations, Schramm (1973) defined communication as the functions of persuading, informing, teaching and entertaining people. Therefore, communication is a process by which people create and share information with one another to reach a common understanding.

Functions of Communication

Communication performs various socio-psychological functions. MacBride (1980) has discussed some functions of communication in a social system. The main functions are as follows:

(i) **Information:** The collective storing and dissemination of information for wider human use is referred to as communication. This makes it possible for people to engage in and make informed decisions about any topics with social relevance. Information has been utilised as a socio-cultural and economic development resource.

(ii) **Socialisation:** Individuals who are active in their communities benefit from communication. People pick up social customs, so they can coexist peacefully. People in a social system have possibilities to comprehend one another and appreciate the sentiments, emotions, ideas

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and expectations of others because they have access to a variety of information.

(iii) Motivation: A society develops in large part due to the individual motivation of its members. Individual and group activities are encouraged by communication, which also inspires people to achieve predetermined goals. People with knowledge take the lead in social welfare efforts.

(iv) Education: Information dissemination fosters intellectual growth and aids in developing the abilities and skills necessary to contribute effectively to society. In this sense, education and communication are complementary concepts. The level of communication between society's citizens and educators determines the quality of education.

(v) Entertainment: Recreation and entertainment are crucial for maintaining the health of both individuals and society. Through a variety of communicative activities, such as dance, drama, sports, music, etc., people find delight and entertainment. These communication channels offer amusement on an individual and group level.

Means of Communication

There are various tools and media, which serve as means of communication among human beings. Starting from the signs - the primitive means, to super computer-based-communication, there are various techniques, technologies and materials generally used to collect, produce, carry, receive, store, retrieve and disseminate information. All human beings make use of one or the other means of communication depending upon their accessibility and effectiveness. The potential of each means of communication, as well as its weaknesses are discussed below:

(i) Signs and sounds: Simple signs have been used by humans as a form of communication since prehistoric times. Different communities employ body language and other non-verbal languages like facial expression, gestures, music, songs, drawings and paintings. Despite limitations, these communication methods are used for a variety of purposes in primitive societies. With time, these means of communication improved and their application range expanded to more extensive uses.

(ii) Language: All around the world, a variety of languages and dialects are utilised for communication. There are approximately a thousand dialects spoken in India, in addition to the 18 official languages specified in the Eighth Schedule of the Constitution. At both the national and international levels, language is crucial for communication in both face-to-face and remote settings. Language use also plays a significant role in communicating in the classroom. The inability of a substantial portion of the population to communicate effectively with one another due to linguistic barriers causes issues.

(iii) Postal system: The most important network for delivering information from point to point is the postal system. It is used as the centre of remote communication on a global scale. The most widely used form of communication, in both developed and developing nations is the postal system.

(iv) Telephone: The telephone system is one of the networks used for interpersonal communication. In India, telephone use in the classroom is still uncommon. The biggest obstacles to using the telephone extensively in distance education are its limited network, expensive expenses and the lack of initiative on the part of the country's educators. But in recent years, telephone communication has expanded, rather quickly in our nation.

In comparison to other nations, our nation's telephone network infrastructure is extremely subpar. One telephone connection is accessible for every 2, 2, 1.5 and 1.3 people in Australia, Japan, Canada and the United States, correspondingly.

(v) Mass media: The development of radio waves and the printing press has completely changed how people communicate globally. Communication now has a wider audience and is more efficient. Mass education has expanded to include textbooks, newspapers, radio and television broadcasts. Broadcasting is a successful method of distributing information to an infinite audience by bypassing geographic restrictions. It transcends international borders. New possibilities have been made possible by advancements in communication technology.

(vi) Satellites: The world has come together, thanks to satellites. In a flash, information can be sent or received from anywhere in the world. There are communication satellites in several nations. India is one of the few nations, which have own satellites. The satellites that India has so far launched are mostly employed for a variety of domestic objectives. The Indian National Satellites are equipped to offer services for meteorological data, telephone networking, remote sensing, in addition to television and radio broadcasts.

(vii) Computers: The computers are the most advanced and sophisticated means of communication. They are a force in education, as they perform a number of functions with complete efficiency. They have made communication more interactive and individualised.

Process of Communication

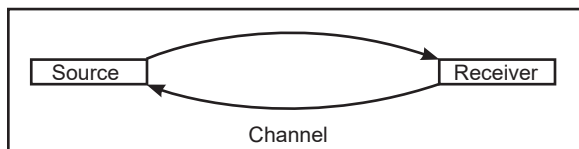
The communication process, as Shannon and Weaver proposed in 1949, involves five elements—the source, the receiver, the channel, a coding scheme and noise.

(i) Source and Receiver: There will be no communication without the source and the recipient. Humans, animals, or even inanimate objects can be the source and the receiver. For instance, an information source can be a computer, a non-living mechanism. In the context of educational communication, the sources are the institutions and the recipients are the students.

(ii) Channels: The channels of communication are the means through, which information is transmitted from the source to the receiver. We communicate via a variety of methods, including touch, drumming, spoken words, written words and electrical devices. Even non-verbal and verbal communication can be carried out through facial expressions. The old forms of communication, such as sound signals conveyed across great distances, are still used by tribal groups. Today, we communicate via radio, television, cassettes, telephone, computers, video discs,

ISSUES IN COMMUNICATION / 3

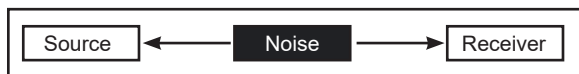
videotexts and satellite. The following diagram illustrates how the source, receiver and channel are related to one another:



There are direct and indirect communication channels. In the direct channel, we communicate thoughts and information using spoken words, gestures and facial expressions. Electronic and non-electronic communication channels are used in the indirect channel. In the classroom, for instance, we frequently rely on direct communication, or face-to-face instruction, whereas in distance education, we also use non-print and print media in addition to speech communication. In a certain method of education, the curriculum design is significantly impacted by the choice of communication channel.

(iii) Code: A set of signs or symbols used in communication produces meaning for both the sender and the receiver. Word-of-mouth, written material and pictures are all forms of coding used to convey thoughts, feelings and opinions. We use a number of verbal and non-verbal communication signals in our social interactions. The source and the receiver should both be able to access the code being used for successful communication.

(iv) Noise: Effective communication might be hampered by a few issues. When something interferes with or blocks the transmission of information from the source to the receiver, it is called a noise or a barrier. Noise is any component, excluding those introduced by the sender and the receiver that interferes with the accurate transfer of information. Overloading on information is one possibility, as are reception-related technological problems. The example below demonstrates how noise becomes a communication barrier:



A multitude of noise types can obstruct the flow of information. The three types of noise covered are as follows:

- (a) Poor Reception:** Poor reception distorts or lessens the effectiveness of the message. Poor audio quality for audio resources, distorted pictures for video programmes and subpar paper and printing for text materials are a few examples. These pauses make users less inclined to participate in the communication process.
- (b) Over loaded/ambiguous Information:** Information that is excessive or unclear can reduce the effectiveness of a communication. For instance, a course unit containing too much material may distract students and make it difficult for them to comprehend the meaning of the message.

If there is too much information being aired on the radio or TV all the time, the audience may start to become passive users. Similar to this, communication is hampered by confusing information.

- (c) Environmental Distractors:** Noise is frequently a byproduct of environmental disturbances. Consider watching or listening to audio or video cassettes as an example. Communication is less effective when there are interruptions, such a ringing phone or typewriter noise. Even watching television at home is impossible because of the kids running around the house, the phone ringing and family conversations. Environmental distractions should be eliminated or minimised to ensure that they do not impede the consumer's ability to pay attention to the content being provided in order to facilitate effective communication.

This is how the educational programme's materials should be studied as well.

Both the phrases "noises" and "barriers" relate to any interference in communication (whether one-way or two-way) between the source and the receiver (s). The interruptions or noises have an effect on how successfully the student and teacher connect pedagogically in both face-to-face and mediated education.

- (v) Feedback:** Feedback is a communication in reaction to a prior message from the source. Any technique that allows the sender to determine whether and how the information was received by the intended receiver is considered this. The recipient, in turn, communicates any queries or worries, requests further clarification and requests confirmation that he or she has understood the information correctly or in line with the intent of the author.

In addition to letting the source know how well the information was received by the recipient, feedback enables both the source and the receiver to correct errors and omissions. Feedback affects one's communication style now and in the future. In a face-to-face situation, feedback can be both verbal and non-verbal. Either the sender or the recipient can quickly accept or reject the communication. A straightforward smile could indicate the source's or the receiver's reaction. A single head nod is all that is required to start a two-way conversation. In situations like remote schooling, feedback is occasionally given through written communication. While communicating virtually, feedback can come in a variety of methods.

There are two types of feedback-immediate feedback and delayed feedback. When learning in person, the student receives prompt feedback from his or her teachers. Even when using a computer to aid in learning, the student can get quick feedback on how they are doing. Though the student prepares their assignment responses and submits them to the assessors for their comments and grading, they don't

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receive feedback on their work for a few days. After a brief break, remarks are given to the teacher and the student in radio and television broadcasts as well. Instantaneous or delayed feedback is essential for effective communication and to ensure the desired effect on the students. It also implies that we are concerned with having the desired effect on the receivers by raising feedback frequency and systematising it.

(vi) Context: The environment in which communication occurs is essential to the exchange of information. Environments that are social, physical, or culturally specific, might affect how something is transmitted. In our daily lives, we constantly overhear people saying, "You misconstrued what I said. You've given my request a lot of thought. I jokingly said" ... and so on. The effectiveness of communication is also impacted by factors pertaining to behaviours, attitudes and values. Similar to this, the mental and physical well-being of the participants affects how well they communicate.

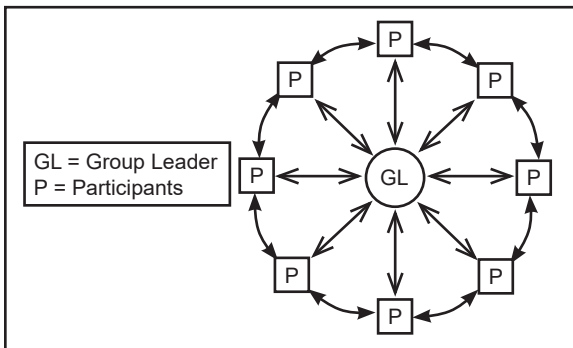
Types of Communication

Communication can be discussed at four levels:

- (i) Interpersonal Communication
- (ii) Group Communication
- (iii) Organisational Communication
- (iv) Mass Communication

(i) Interpersonal Communication: This is a typical form of communication when two people exchange ideas, feelings and opinions. Interpersonal communication includes interactions between friends, between teachers and students, between mothers and children and other situations. Another instance of interpersonal communication that takes place remotely is talking to someone on the phone.

(ii) Group Communication: In this kind of communication, a team's members decide together on a challenge, an issue, or a topic of shared interest. To achieve a set of objectives, to forge new social connections, or to find a solution to a challenge the group is facing, the participants in a group communication play an active role in communication. The diagrammatic representation of group communication is shown below. Group communication systems can be found in places like the family, a particular area of an office and a classroom.



(iii) Organisational Communication: It is centred on a single organisation. Any organisation can be considered a multiple group communication system because it is made up of groups of people interacting

with one another. Anywhere within the organisation may initiate communication but the only direct channel for information is within the organisation. Schools, businesses and offices are examples of this form of communication. In this type of organisational communication system, notifications are typically employed as a form of communication.

(iv) Mass Communication: More than two people are involved in mass communication, yet it goes beyond group and organisational communication. As the name "mass" suggests, this kind of communication always involves a sizable group of people exchanging knowledge, concepts and ideas. In this instance, we communicate with a sizable audience through the mainstream media. Face-to-face interactions, as well as print and non-print media, can all be used in mass communication. For instance, radio and television programmes are transmitted to inform, educate and/or entertain a sizable audience.

Three features of mass communication are covered below:

(i) The audience is large and heterogeneous: There is a sizable and diverse audience. Being mass communication mediums, radio and television have a sizable audience with a variety of origins, tastes, ages and jobs. These mediums are accessible to both uneducated and literate people. A similar mass medium, newspapers have a somewhat smaller audience.

(ii) The source is an institution or a group of people: A Company or a group of individuals are the source. For instance, the Indian government's Ministry of Information and Broadcasting broadcasts radio and television programmes all over the nation. One of the private organisations in India that participate in printed mass communication is The Times of India group.

(iii) Some kind of mechanism is used to reproduce information: Information reproduction involves some sort of mechanism. The printing press, the television and radio receivers, the studio where programmes are produced and the transmitters, all serve as mechanisms.

Educational Communication

The Latin verb "communicate", which means "to share", is the source of the English term "communication". Sharing knowledge, abilities and attitudes is a part of the teaching and learning process. The act of exchanging content with pupils remotely is known as distance education. As a result, communication between society and people can be viewed as a process of education (Hills, 1986). Hills adds that the effectiveness of education in conveying societal standards should be regularly assessed. The process of how professors and students behave and interact to advance the knowledge of the latter is at the heart of educational communication. Teachers and institutions serve as the sources in educational communication and the communications are curriculum-related (the content, the skills and the attitudes and related activities which educate, inform, train, enlighten, inspire and entertain the students). Students serve as the receivers and a variety of instructional techniques including textbooks, assignments, audio-visual aids, demonstrations and tutorials are employed as media to communicate the