

Manual

DEVELOPMENT COMMUNICATION AND INFORMATION MANAGEMENT

AG. EXT.-502 (2+1)
M.Sc. (Ag.) I Semester



DEPARTMENT OF AGRICULTURAL EXTENSION
CBG PG COLLEGE OF AGRICULTURE
B.K.T., LUCKNOW-226201
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SYLLABUS

Unit-I Communication process: Concept, definitions, elements and their characteristics, models and theories, types and functions of communication, communication process, feedback in communication, fidelity of communication, communication effectiveness and credibility, communication gap, Empathy, Homophily and heterophily, communication skill, criteria for selecting effective communication methods for extension, Barriers in communication, Message- meaning, dimensions of a message, characteristics of good message, message treatment, distortion of message

Unit-II Methods of communication: meaning, definition, functions, classification, forms of communication-oral & written communication, non-verbal communication, interpersonal communication, organizational communication.

Unit-III Extension teaching methods and audio-visual aids: meaning, types, classification and their importance in communication of innovation. Factors affecting its selection in effective use.

Unit-IV Role of mass media in dissemination of farm technology, effect of media mix for rural people, modern communication media-electronic video, Tele-video conference.

Practical

1. Listening skills, writing skills,
2. Preparation and presentation skill of communicator regarding communication media viz. visuals (poster chart).
3. Generating computer aided presentation- graphics, scanning of visuals and evaluation of visuals assignments

Unit-I: Communication

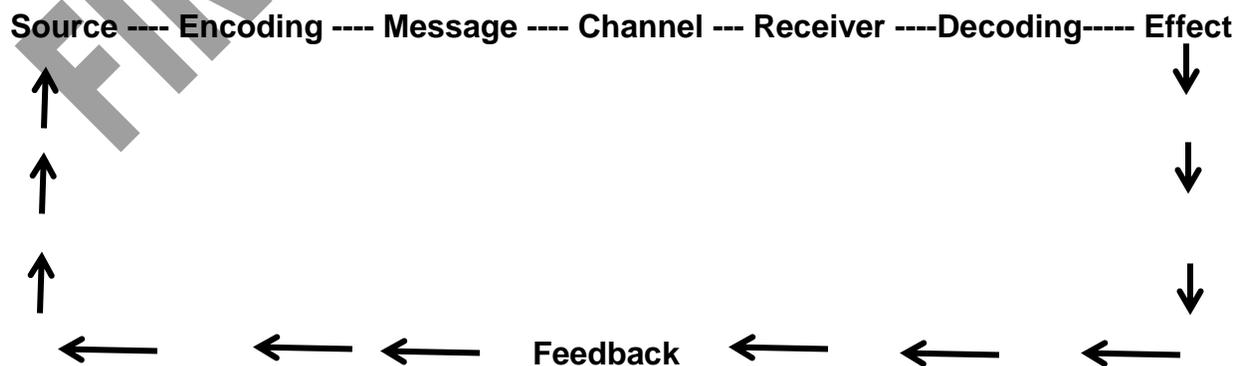
LECTURE-1

Meaning of Communication

Communication is the basis for all human interactions and provides the means for individual or group of people to relate reciprocally and hence enable groups to function. When we communicate, it is because we have an idea or a feeling that we want to share with someone. In order to share it, someone has to receive what we are communicating. Effective communication exists between two people when the receiver interprets the sender's message in the same way the sender intended.

The word 'communication' comes from the Latin word 'communis' its meaning is common. It means that when we communicate, we are trying to establish community with someone through a message. 'Communication' then is a conscious attempt to establish community over some idea, fact, feelings and the like, with others. Consequently it is a process of getting a source and a receiver tuned together for a particular message or a series of messages.

For communicating the ideas, you have used a medium (common or talking) The other man has listened to your concept but before understanding the proper meaning he has done the decoding of that concept in his mind and he has made a decision in his mind for this concept, whether this concept should be used or not, this decision is called the effect of communication. As you are standing there you are observing the man's reactions and evaluating the "effectiveness of the communication." This evaluation is called "Feedback". We can explain this whole process in the following way:



Definitions

Although there are many definitions of communication.. But some main definitions are given as under:

1. Communication is a process by which two or more persons exchange ideas, facts, impressions in way that each gains a common understanding of the meaning, content and use of message.

J. Paul Leagan (1961)

2. All educational and action programmes in agricultural are communication.

Coleman & Marsh

3. All the procedure by which one mind can affect another. **Shannon & Weaver (1949)**
4. Communication is anything that conveys meaning that carries a message from one person to another. **Brooker (1949)**
5. "Communication is the discriminatory response of an organism to stimulus".

Stevens (1942)

6. "Communication is the arrangement of environmental stimulus to produce certain desired behavior on the part of the organism". **Thayer (1967)**
7. "Communication is the process by which messages are referred source to a receiver." "In Extension Education it refers to the process of transferring an idea, skill or attitude from one person to another accurately and satisfactorily." **Suppe**
8. "Communication is all of the procedures, by which our mind can affect another".

Weave (1966)

9. "Communication is the process by which two or more people exchange understand ideas, facts, feelings and impression". **Waghmare**
10. "Communication is any occurrence involving a minimum of four sequential ingredients: (i) a generator of a (ii) sign-symbol system which is (iii) projected to (iv) at least one receiver who assigns meaning". **Robert Geyer (1967)**
11. "Communication is a purposeful process, which involves sources, messages, channels, and receivers". **Andersch et al. (1969)**

12. “Communication may be defined as a process by which an individual-thecommunicator, transmits (usually verbal symbols) to modify the behavior of other individualscommunicates”. **Hovland (1964)**

13. “Communication is the control of behavior through descriptive and reinforcingstimuli”.

Hortman (1966)

14. “Communication has as its central interest those behavioral situations in which a source transmits a message to a receiver(s) with conscious intent to affect the latter’sbehavior”.

Miller (1968)

15. Communication is a process that involves the exchange of ideas between two or more individuals in an attempt to arrive at convergence in meaning.**Rogers et al. (1981)**

16. Communication is a process involving the passing of messages from one person to another through the use of symbols which all parties in the communication process understand.

James (1990)

17. Communication is the process by which a source sends a message to a receiver by means of some channels in order to produce a response from the receiver in accordance with the intention of the source. **(IRRI publication on communication process, 1992)**

18. Communication means the movement of knowledge to people in such ways that they act on that knowledge to achieve some useful results.**(Winfield1967)**

Agricultural communication is defined as a planned transfer of farm technologies from the research system to the farmers’ system through extension system and media with a view to make desirable changes in respect of higher productivity, profitability and prosperity and also get feedback from the clients

Communication is widely seen as a two-way process in which the sender (source of information/message) and receiver of information are seen as active participants who are involved in an exchange process and therefore, swap roles

Communication can be defined as:

1. The means of sending messages
2. The transmission of information

3. That situation in which a source transmits a message to a receiver with conscious intent to affect the latter's behaviours.
4. The verbal interchange of thoughts or ideas
5. The process that links discontinuous parts of the living world together
6. A process that makes common to two or several what was the monopoly of one or some.

Good communication does not consist merely of giving orders, **but of creating understanding**. It does not consist merely of imparting knowledge, **but of helping people gain a clear view of the meaning of knowledge**. Most of the progress in the future will stem from better technology and greater skill in communicating it to others. Too many people saying the wrong things at the wrong time, in the wrong way, to the wrong people, slows down progress. **What is needed more people saying the right things at the right time, in the right way, to the right people. This is the formula for good communication.**

LECTURE-2

Importance of Communication

1. Communication establishes a favourable climate in which development can take place.
2. Communication has multiplier effect
3. Communication varies the aspirations of the people
4. Communication is essential for all human activities
5. Communication is essential for good leadership

Purposes of communication

Some of the important purposes of communication are

- Giving and receiving information
- Instructing and educating
- Persuading others to change
- Strengthening beliefs
- Entertaining
- Improving human relationships and satisfying wants

Elements of communication

1. The Communicator

This is the person who starts the process of communication in operation. He is the source or originator of messages. He is the sender of messages. He is the first to give expression to message intended to reach an audience in a manner that results in correct interpretation and desirable response. When a communicator does not hold the confidence of his audience, communication as conceived will not take place.

The following are **the good qualities of a good communicator**

1. The Communicator Knows -

- ✓ The specifically defined objectives.
- ✓ The needs, interests, abilities etc. of the audience.
- ✓ The content, validity, usefulness and importance of the message
- ✓ The channels that will reach the audience and their usefulness
- ✓ The tactics of organizing and treating the message
- ✓ His/her professional abilities and limitations.

2. The communicator is interested in -

- ✓ The intended audience and their welfare
- ✓ The specific message and its effects in helping the people
- ✓ The entirety of communication process
- ✓ The proper use and limitation of communication channels.

3. The communicator prepares -

- ✓ A specific teaching plan for communication
- ✓ Materials and equipment's needed for communication
- ✓ A plan for evaluation of results.

4. The communicator has skill in

- ✓ Selecting messages
- ✓ Treating messages
- ✓ Expressing messages in verbal and written forms
- ✓ The selection and use of channels
- ✓ Understanding the audience
- ✓ Collecting evidence of results.

2. Message or content

A message is the information communicator wishes his audience to receive, understand, accept and act upon. Messages, for example, may consist of statements of scientific facts about agriculture, sanitation or nutrition; description of action being taken by individuals, groups or committees; reasons why certain kinds of action should be taken; or steps necessary in taking given kinds of action.

Features of a good message

A good message must be -

- ✓ In line with the objectives to be attained.
- ✓ Clearly understandable by the audience
- ✓ In line with the mental, social, economic and physical capabilities of the audience
- ✓ Significant-economically, socially or aesthetically to the needs, interests and values of the audience.
- ✓ Specific in terms of audience and locale
- ✓ Accurate so as to be scientifically sound, factual and current in nature.
- ✓ Appropriate to the channel selected.
- ✓ Appealing and attractive to the audience signifying the utility values and immediacy of use.
- ✓ Adequate in such a way to have effective proportionate combination of principle and practice manageable so as to be handled by the communicator within the resources availability.

3. Channels of communication

The sender and the receiver of messages must be connected or 'tuned' with each other. For this purpose, channels of communication are necessary. They are the physical bridges between the sender and the receiver of messages-the avenues between a communicator and an audience on which messages travel to and fro. They are the transmission lines used for carrying messages to their destination. Thus, the channels serve as essential tools of the communicator.

A channel may be anything used by a sender of messages to connect him with intended receivers. The crucial point is that he must get in contact with his audience. The message must get through.

However, channels are no good without careful direction or use in the right way, at the right time, to do the right job, for the right purpose with the right audience, all in relation to the right message. So, proper selection and use of channels constitutes a third determinant of successful communication. Without proper use of channels, messages, no matter how important, will not get through to the intended audience.

Many obstructions can enter channels. These are often referred to as 'noise' - that is, some obstruction that prevents the message from being heard by or carried over clearly to the audience. 'Noise' emerges from a wide range of sources and causes.

LECTURE-3

4. Treatment of messages

Treatment has to do with the way a message is handled to get the information across to an audience. It relates to the technique, or details of procedure, or manner of performance, essential to expertness in presenting messages. Hence, treatment deals with the design of methods for presenting messages. Designing the methods for treating messages does not relate to formulation of the message or to the selection of channels, but to the technique employed for presentation within the situation provided by a message and a channel.

The purpose of treatment is to make the message clear, understandable and realistic to the audience. Designing treatment usually requires original thinking; deep insight into the principles of human behaviour and skill in creating and using refined techniques of message presentation.

5. Audience

An audience is the intended receiver of message. It is the consumer of messages. It is the intended respondent in message sending, and is assumed to be in a position to gain economically, socially or in other ways by responding to the message in particular ways. In good communication the communicator already identifies the audience aims.

6. Audience response (feedback)

This is the terminating element in communication applied to rural development programmes. Response by an audience to messages received is in the form of some kind of action of some degree, mentally or physically. Action, therefore, should be viewed as a product, not as a process; it should be dealt with as an end, not as a means. Consequently, the five elements hitherto analyzed viz., communicator, message, channel, treatment and audience are

intended to be viewed as an organized scheme (means) for attaining the desired action (end) on the part of an intended audience.

Principles of good communication

Principles are those fundamental rules, which guide the management in the formulation of policies.

Following are the major principles of communication.

- ✓ Clarify the ideas before communication:
- ✓ Object of communication:
- ✓ Tone and the contents of the message:
- ✓ Convey things of help and value to listeners:
- ✓ Communication for present and future:
- ✓ Correlation between action and communication
- ✓ Be a good listener:

LECTURE-4

Types/level of communication

As per *Thayer (1968)* the four level of communication are:

1. Intra-personal: Referring to communicate with one's self. It mostly occurs in face-to face situations in which the participants can see, hear or even touch another person. It offers an opportunity for immediate feedback.

2. Interpersonal: It may be viewed as an attempt on the part of at least one of the participants, to establish, maintain, exploit or after some relationship vis-a-vis the other, either by adapting himself to the other or by attempting to adapt the other to him in some way. However, the process of communication, which occurs within each participant, not by what, goes on between them, determines the immediate and ultimate consequences.

3. Organizational communication: Organizational communication refers to all those data-flows that sub serve the organizations communication and inter communication processes in some way.

4. Inter-organizational communication: It is the system developed by every organization for communicating with another organization. It should however, be understood that the organizations do not inter communicate as such but the people only do it.

Functions of communication

Communication has four basic functions

- 1. Information:** the basic requirement of adapting and adjusting oneself to the environment is information. There must be some information about what is going on in the environment which concerns the people. The getting or giving of information underlines all communication functions, either directly or indirectly.
- 2. Command or instructive function:** Those who are hierarchically superior, in the family, society or organization, often initiate communication either for the purpose of informing their subordinates or for the purpose of telling them, what to do, how to do, when to do etc. the command and instructive functions of communication are more observable in formal organization than in informal organization.
- 3. Influence or persuasive function:** According to Berlo (1960), the sole purpose of communication is to influence people. Persuasive function of communication i.e. to induce people is extremely important for extension in changing their behavior in the desirable direction.
- 4. Integrative function:** A major function of communication is integration or of continuously offsetting and disintegration at the interpersonal or at the organizational level. This helps to maintain individual, societal or organization stability and identity

LECTURE-5

Models of communication

In general, a model is a systematic representation of an object or event in idealized and abstract form.

Models of communication provide a theoretical conceptual framework depicting and explaining the process of communication. Various models have tried to depict and explain communication process.

The communication models can be grouped under three broad headings such as verbal, structural, explanatory models, few examples are as under

Verbal model

Aristotle

Structural model

Shannon & Weaver

Explanatory model

Osgoods

Lass well
Gerbner

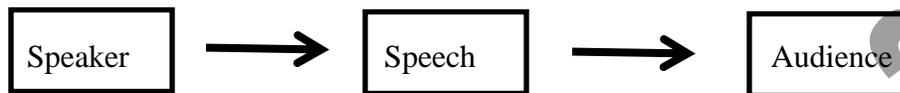
Berlo
Leagan

Johson
Newcoomb

Aristotle's model (1762)

According to Aristotle, communication has three elements:

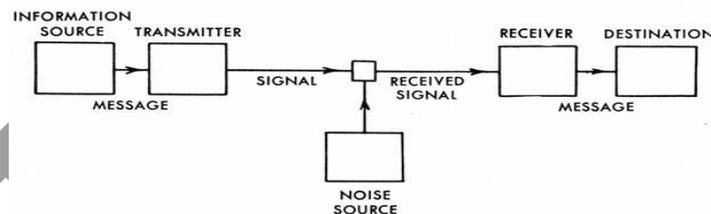
1. **Speaker** – the person who speaks
2. **Speech** – the speech that the individual produces
3. **Audience** – the person who listens



2 Shannon- Weaver's model

The Shannon-weaver (1949) model is consistent with Aristotle's proposition. According to them, the elements of communication are:

1. Source
2. Transmitter
3. Signal
4. Receiver
5. Destination



Claude Shannon and Warren Weaver gave this model. As the diagram above indicates, this communication model comprises four elements. A source of information, with a greater or lesser number of messages to communicate; a transmitter or sender with the capacity to transform a message into a signal; a receiver which decodes the signal in order to retrieve the initial message, and finally, the destination, a person or thing for whom the message is intended. Communication, according to this model, follows a simple left to right process. The information source (say speaker), selects a desired message from all the possible messages. The message is sent through a transmitter (microphone) and is changed into signals. A receiver (say earphone), changed back into a message and given to the destination, a listener, receives the signals. In the

process of transmission, certain distortions are added to the signal which are not part of the message and these will be called noise.

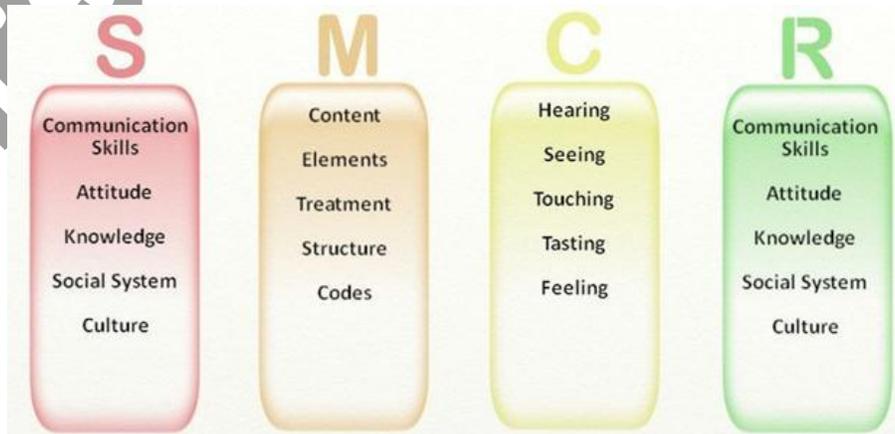
The basis of all contemporary Western theories of Communication - Shannon- Weaver model stresses the idea of inside and outside and assumes that communication is a lineal matching rather than making. The information source changes the message into the signal, which is actually sent over the communication channel from the transmitter to the receiver. In the case of telephony the channel is a wire the signal a varying electrical current on this wire, the transmitter is the set of devices (telephone transmitter etc.) which change the sound pressure of the voice into the varying electric current. In oral speech, the information source is the brain; the transmitter is the voice mechanism producing the varying sound pressure (the signal) which is transmitted through the air (the channel). In radio, the channel is simply space, and the signal is the electromagnetic wave, which is transmitted. The receiver is an inverse transmitter, changing the transmitted signal back into a message and handing this message on to the destination. In the process of being transmitted, usually certain things are added to the signal, which were not intended by the sender. These additions are distortion of sounds as in telephony, or static in radios, or errors in transmission in telegraphy or facsimile etc., Such changes in transmission signals are called noise.

LECTURE-6

Berlo's model

According to Berlo (1960) the model of communication consists of

1. Source
2. Message
3. Channel
4. Receiver



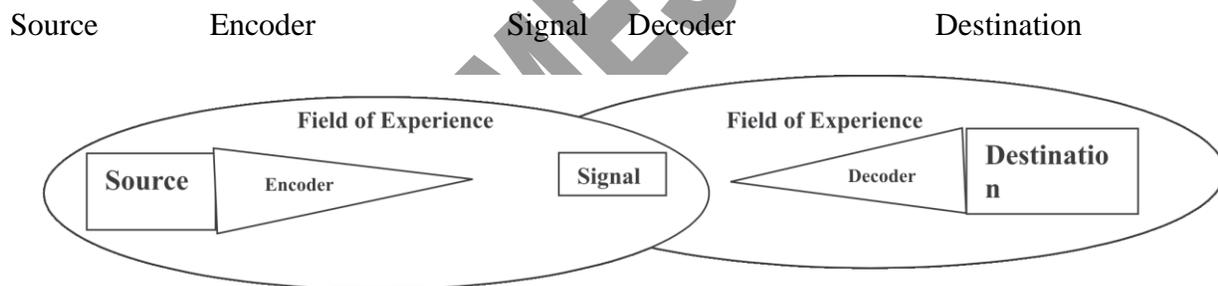
Berlo more than the others emphasized the idea that communication was a process, and the idea that “meanings are in people, not in words....”

His model reinforced a shift away from views of communication that emphasized the transmission of information to perspectives that focused on the interpretation of information. Berlo writes, “People can have similar meanings only to the extent that they have had similar experiences”. Berlo also felt that human communication always had a purpose "our basic purpose in communication is to become an affecting agent, to affect others, our physical environment, and ourselves. We communicate to influence to affect with intent".

Schramm’s model

According to Schramm (1961), the communication process involves:

1. Source
2. Encoder
3. Signal
4. Decoder
5. Destination



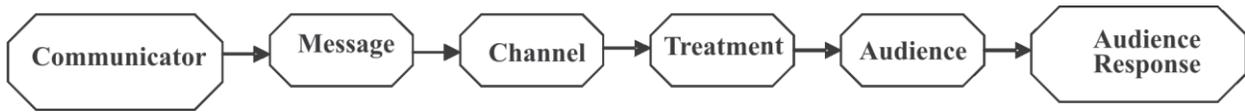
This model of communication is preferably relevant for the mass media. In human communication it is most important whether people can properly encode or decode the signal (message), and how they interpret in their own situations.

Leagan’s model

The communication model forwarded by Leagans (1963) has the following elements-

1. Communicator
2. Message
3. Channel
4. Treatment
5. Audience

6. Response



The task of communication, according to him is to provide powerful incentives for change. Success at this task requires thorough understanding of the six elements of communication, a skillful communicator sending useful message through proper channel, effectively treated, to an appropriate audience that responds as desired.

Rogers and shoemaker's model

Rogers and shoemaker (1971) thought of the communication process in terms of the S-M-C-R-E model, the components of which are –

1. Source
2. Message
3. Channel
4. Receiver
5. Effects



According to them a source (S) and message (M) via certain channels (C) to the receiving individual (R), which causes some effects (E) i.e., changing the existing behaviour pattern of the receiver.

LECTURE-7

Theories of communication

The theories of communication can be classified into three groups namely

Theories about any phenomenon in general will highlight the key concepts involved in it. These theories of communication will be useful for a person who is trying to understand a given communication event by way of providing a framework which suggests what he should look for.

These theories should be viewed based on the basic assumptions that communications is a transitive, multidimensional, multipurpose process.

Obviously, no theory or model is going to do all we ask of it. All the models / theories to be surveyed, at least fail one or more of the criteria. It is the purpose of a theory or model to reduce reality to a manageable number of elements and relationships among those elements. The students of communication should be familiar with a variety of communication theories and models so that he or she can use that one which is appropriate for the analysis of a given situation. The theories of interpersonal communication as stated by various authors were:

Theories of interpersonal communications

1. Kelman paradigm,
2. Bauer's scheme
3. Festinger's scheme,
4. Attribution theory,
5. Gametheory,
6. Social comparison theory,
7. New comb's theory
8. Stimulus response theory
9. Linguistictheory,
10. Psycholinguistic theory and
11. Socio-linguistic theory

In general, the theories of interpersonal communication explains it as the face to face interaction between people who are consistently aware of each other. Here the mutual pressure of the message generator and receiver is required. Each person assures the rules of sender and receiver of message who are independent and interchangeable. The behavior of the participants in interpersonal communication are so intertwined in the process that it is difficult to separate the sender from receiver.

Attribution theory gives stress to the psychological state, motives and intensions of the individuals involved in communication.

Game theory views interpersonal communication as the process of transaction between the people to balance possible gains and losses. Social comparison theory states that persons communicate in order to verify their perceptions of the world assumptions about themselves. New comb's theory explains the thinking processes of people who are reacting to one another simultaneously – linguistic theory deals with a description of language systems. Psycholinguistic

theory focuses attention on the behaviour of an individual in the use of language. Socio-linguistic theory explains patterns of variation in language across different people, stimuli relationship, context and competence.

Theories of mass communication (message flow models):

1. Hypodermic needle model,
2. One step flow model,
3. Two step flow model,
4. Multistep flow model,
5. Theory of mass media effects,
6. Theory of individual difference,
7. Psychodynamic model of persuasion process,
8. Theory of social categories,
9. Theory of social relationship,
10. Socio-cultural model of persuasion process,
11. Free press theory,
12. Social responsibility theory,
13. Development media theory,
14. Democratic participant media theory

Several models have been conceptualized to explain the flow of message from the communicator to the mass audience. Based on the number of ways involved in the flow of message between sender and receiver theories like hypodermic needle, one step flow, two step flow, and multistep flow are conceived. The response to mass media message is said to occur in line with the psychological makeup of the individuals was taken as the assumption as per the theory of individual differences. Psychodynamic model explains about the relationship between internal processes and manifest overt behaviour of the persuader. Theory of social category emphasizes that people who have a number of similar characteristics are likely to have similar orientation and behaviour resulting in a fairly uniform response to mass media. Free press theory stresses that the act of publication and distribution should be open to the audience and no restriction should be placed on the publication of new items, social responsibility theory states that media should accept and fulfill certain obligations to society. Development media theory states that media should accept and carryout positive development tasks in line with nationally established

policy. The central point of the democratic participant media theory lies with the needs, interests and aspiration of receiver in a political theory.

Theories of communication distortion

1. Theory of communication distortion and
2. Theory of communication distortion in transit

The first one states that larger the volume of communication, larger would be the communication distortion. Increasing the volume of communication increases more chances for misunderstanding, misinterpretation, less concentration and low priorities.

The second one emphasizes that messages pass through many layers in an organization. Therefore repetition and reproduction of the same message is multiplied into many which reduces the efficiency of communication.

The overview of communication theories suggests that communication can be described in terms of networks, which give the observer some indication of who is communicating with whom it can also be described in terms of the types of interactions which are occurring among communicators.

Further, it can be described in terms of message transactions, which indicate how the elements of communication combine to produce a unique unrepeatable event. It can be also viewed from the point view of individual gathering information as he passes through his environment.

LECTURE-8

Communication Process:

Communication process starts with a **sender/source**; who has a **message** for a **receiver**. Two or more people are always involved in communication. The sender has the responsibility for the message. The sender's message travels to the receiver through one or more **channels** chosen by the sender. The channels may be verbal or non-verbal. They may involve only one of the senses, hearing for example, or they may involve all five of the senses: hearing, sight, touch, smell, and taste. Non-verbal communication, popularly referred to as body language, relies primarily on seeing rather than hearing.

Process of Communication

Most of us are familiar with the five-step process occurring between a sender and receiver when they communicate:

1. The sender generates an idea in the mind.
2. The idea is then converted into words, pictures, sounds, symbols, actions. This is called 'encoding the idea'.
3. The encoded idea is transmitted to the receiver.
4. The receiver receives the encoded message through the senses and perceives it in the mind.
5. The receiver then decodes or converts the messages back into meaningful ideas in his / her own mind.

Communication has been defined as a process. The process is a concept which is dynamic and ever-changing in nature. It implies that events and relationships are seen as dynamic, flexible and continuous and must be considered as a whole, a dynamic interaction both affecting and being affected by many variables. Thus, process has at least four elements-acts or action, a continuous change in time, advancement or progress over time, and a goal or result. Therefore, process implies a time dimension as well as a space dimension in which action unfolds in a continuously changing progression towards some goal.

Meaning and characteristics of feedback

Feedback is the response or reaction of the receiver to the message he/she has received.

It is one of the most important elements of communication. In a two-way communication process, it is this feedback that tells you how effective the sender has been in communicating the message. Very often the feedback from the receiver helps the sender to clarify the message, thereby improving communication.

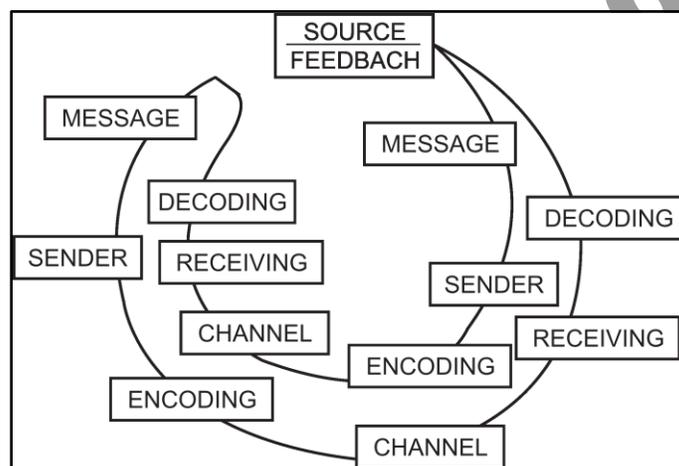
Meaning of feedback

The only real hope of an improvement in our communication system is for the sender to assure himself that his communication has been thoroughly understood by the receiver. All the way through a communication, he must use a control that will ensure the degree of meaning which has placed on his words is appreciated when received. A piece of message transmitted is said to be effective only when there is a provision for feedback in communication. A communication process is said to have feedback, when the receiver of the message has given his response to the sender's message. On the other hand the communicator must know how well the message has

been received by the receiver, understood, interpreted and acted upon. Feedback helps to determine this process.

Sending back the knowledge about the message to the communicator is known as feedback. Thus, feedback is one of the important elements of the communication process. A communication process without a provision for feedback is not an effective communication.

Two-way communication is essential in good feedback between the sender and receiver which promotes good relations between them and motivates them to do their best. Feedback is the means of receivers getting through the sender and getting approval and encouragement for what they are doing.



LECTURE-9

Characteristics of feedback

- i. **Intention:** Effective feedback is directed towards improving work performance and making the worker a more valuable asset. It is not a personal attack. Feedback is directed towards aspect of the job.
- ii. **Specificity:** Be specific rather than saying things like “you always” or “you never”. Vague criticism causes resentment.
- iii. **Description:** Effective feedback can also be characterized as descriptive rather than evaluative. It tells the receivers what he or she has done in objective terms, rather than presenting a value judgment.
- iv. **Usefulness:** Effective feedback is information that the receiver can use to improve performance. If it is not something the receiver can correct, it is not worth mentioning.

- v. Timeliness:** There are considerations in timing feedback properly. As a rule, the more immediate the feedback, the better. This way the receiver has a better chance of knowing what the sender is talking about and can take corrective action.
- vi. Clarity:** Effective feedback must be clearly understood by the recipient. A good way of checking this is to ask the recipient to restate the major points of discussion.
- vii. Validity:** In order, for feedback, to be effective, it must be reliable and valid.
- viii. Readiness:** In order, for feedback, to be effective, the receiver must be ready to receive.

When feedback is imposed upon the receiver it is much less effective.

Feedback should be a continuous process as the audience and communicators are neither always the same persons, nor they are interacting in the same situation. The extension agent shall take steps to analyze the responses of the audience, which may be positive, negative or no response. If there has been no response or negative response to a message, the extension agent shall find out reasons for the same. If it pertains to research, the problem should be referred as feedback information to research, to find out solutions for the same.

LECTURE-10

Communication fidelity

According to Berlo (1960), “Fidelity is the faithful performance of communication process by all its elements”- communicator, message, channel and receiver. Noise and fidelity are two sides of the same coin. Eliminating noise increases fidelity, the production of noise reduces fidelity. The basic concern related to noise and fidelity is the isolation of those factors within each of the ingredients of communication which determine the effectiveness of communication.

The communication fidelity can be explained as the extent of desirable changes in receivers’ behavior as a result of communication. The desirable changes are in receivers’ knowledge, attitude and action. The objective of any communication effort is to have communication fidelity as high as possible.

Effective communication

An Effective Communication is a communication between two or more persons wherein the intended message is successfully delivered, received and understood.

In other words, the communication is said to be effective when all the parties (sender and receiver) in the communication, assign similar meanings to the message and listen carefully to what all have been said and make the sender feel heard and understood.

The effective communication includes not just the way you use the words but also covers several other skills such as, non-verbal communication, ability to understand your own emotions as well as of the other person with whom you are communicating, engaged listening, ability to speak assertively, etc.

Communication effectiveness

According to the dictionary, ‘effective’ means (1)having an effect; producing a result
(2) Producing a definite or desired result, efficient.

Communication effectiveness means a communication encounter that has produced desired results.

Communication effectiveness can be categorized into two broad approaches

- 1) Effectiveness of communication encounter
- 2) Effectiveness of communication performance

Effectiveness of communication encounter

Effectiveness of communication encounter refers to achieving commonality between the communicator and receiver in terms of comprehension.

Effectiveness of communication performance

Under this approach can be broadly included all those attempts which measure the success of any communication in terms of subsequent behavior on the part of the receiver.

Effectiveness: Comprehension, Validity and Utility

Communication effectiveness =Comprehension (clearness)

- +Validity (consonance, credibility and congruity)
- +Utility (relevance)

Comprehension: This refers to the extent message the message conveyed by the source has been clear to the receiver.

Validity: A message may be comprehended by the receiver properly and yet may not affect him as intended by the communicator.

There are three processes of validation that may have to be taken into account.

- The first is consonance validation: what is perceived as legitimate may also be perceived as consonant.
- The second may be credibility validation: this refers to the trustworthiness that a receiver may accord to a source at any particular time.

- The third process is congruity validation: receivers will usually test a particular message against what Tayer (1966) calls 'our psychological system and his intensions and expectations.

Utility: utility may be defined as a measure of the perceived relevance and consumerability of a message from the receiver's point of view at any given time. The more relevant a message is to our needs purposes and resources, the more utility it is likely to have.

Communication effectiveness then, can be measured in terms of comprehension, validity and utility.

In others way, **Communication effectiveness** depends on several factors, some of them are:

Credibility: The receiver must perceive the sender of information as trustworthy and competent.

Context: The message must conform and not contradict the context.

Content: The message must have meaning for the receiver and relevant for the situation. It must be compatible with the receiver's system.

Clarity: The message must be simple and clear to receiver.

Continuity and consistency: Repetition is necessary for the communication to get through to the people. It should also be devoid of contradictions.

Channels: The established channels of communication which the receiver uses and holds in high esteem should be used.

Capability of audience: The capability of the receiver to obtain, understand and use the message, determines effectiveness of communication.

LECTURE-11

Credibility:

Credibility refers to perceived trustworthiness and expertise accorded to a source by its audience at any given time.

Communication skill

As Berlo (1960) points out there are five verbal communication skills.

- Encoding skills
Writing and speaking
- Decoding skills
Reading and listening

The fifth is crucial to both encoding and decoding i.e. thought or reasoning.

There are other encoding skills also, such as painting, drawing and gesturing.

From extension education's point of view, communication skills also include as extension worker's ability to plan a communication strategy vis-à-vis a given objective, his ability to write, speak, prepare and use a teaching aid, treat a message to suit a given situation and to analyse feedback.

As source-encoders, our communication skills determine our communication behavior in three ways:

- i) They affect our ability to comprehend or understand what others are saying and expecting.
- ii) They affect our ability to analyse our purpose and intentions.
- iii) They affect our ability to encode messages that express precisely what we intend to express.

Communication gap

Communication gap refers to the difference between what was communicated by the extension agent and what has actually been received by the audience.

Desirable action by the audience cannot take place if there is a large communication gap. The nature of communication gap may be of two types- the message does not reach the target and the message fails to produce the desired impact, even if reaches the target. The following steps may be taken for reducing the communication gap. These are also essential for conducting an awareness campaign.

Where the message does not reach the target-

- (ii) Communication must be made available
- (iii) Communication must be need based
- (iv) Communication must be in time, and
- (v) Use more than one channel of communication (minimum three channels comprising both mass media and interpersonal may be used simultaneously)

Where the message fails to produce the desired impact-

- (i) Use credible (trust worthy and competent) channels of communication
- (ii) Repeat the message at least thrice at suitable intervals, in different time slots. In repeating the message some variation may be introduced in the format, keeping the central theme intact. This shall help in sustaining the audience.

- (iii) Take precaution against distortion of message (repeat and use printed media).
- (iv) Increase understandability of message
- (v) Give complete information
- (vi) Help in maintaining the equilibrium (new technology may create some disequilibrium in farm and home for which adjustment must be made) and
- (vii) Give new ideas to create and sustain audience interest

LECTURE-12

Empathy

Another form of interdependence between the source and the sender is that of expectation or empathy. Empathy refers to the ability to project ourselves into other people's personalities.

We can define empathy as the process through which we arrive at expectations, anticipations of the internal psychological states of man (Berlo, 1960).

All human communications involve predictions by the source and receiver about how the other will respond to a message. There are two popular theories about the basis of empathy

- a. Inference theory
- b. Role taking theory

a. Inference theory: Each communicator develops a concept of self in a communication situation. He can observe his own physical behavior directly and can relate his behavior symbolically to his own internal psychological status, feelings, emotions, thoughts etc. on the basis of his prior interpretations of self, he makes inferences about the internal states of others.

b. Role-taking theory: This theory developed by Mead (1937) argues that the concept of self does not precede communication; rather it is developed through communication. In the case of a child, for example, the infant actually plays other's roles without interpretation.

Thus, whereas the inference theory assumes a concept of self, which in turn determines how we empathize, the role taking theory suggests that the concept of self is learnt through communication. No single theory is sufficient to explain the reality. Generally, human beings utilize both these approaches of empathy for the purpose of communicating with others.

Homophily and heterophily

According to Rogers (1995), a fundamental principle of human communication is that the exchange of ideas occurs most frequently between individuals who are alike, or homophilus.

Homophily is the degree to which pair of individuals who communicate are similar in certain attributes, such as beliefs, education, social status and the like.

Heterophily is the degree to which pair of individuals who interact are different in certain attributes.

When two individuals share common meanings, beliefs and mutual understanding, communication between them is more likely to be effective. Individuals enjoy the comfort of interacting with others who are similar.

Heterophilus communication between dissimilar individuals may cause cognitive dissonance because an individual is exposed to messages that are inconsistent with existing beliefs and create an uncomfortable psychological state.

LECTURE-13

Barriers of Communication

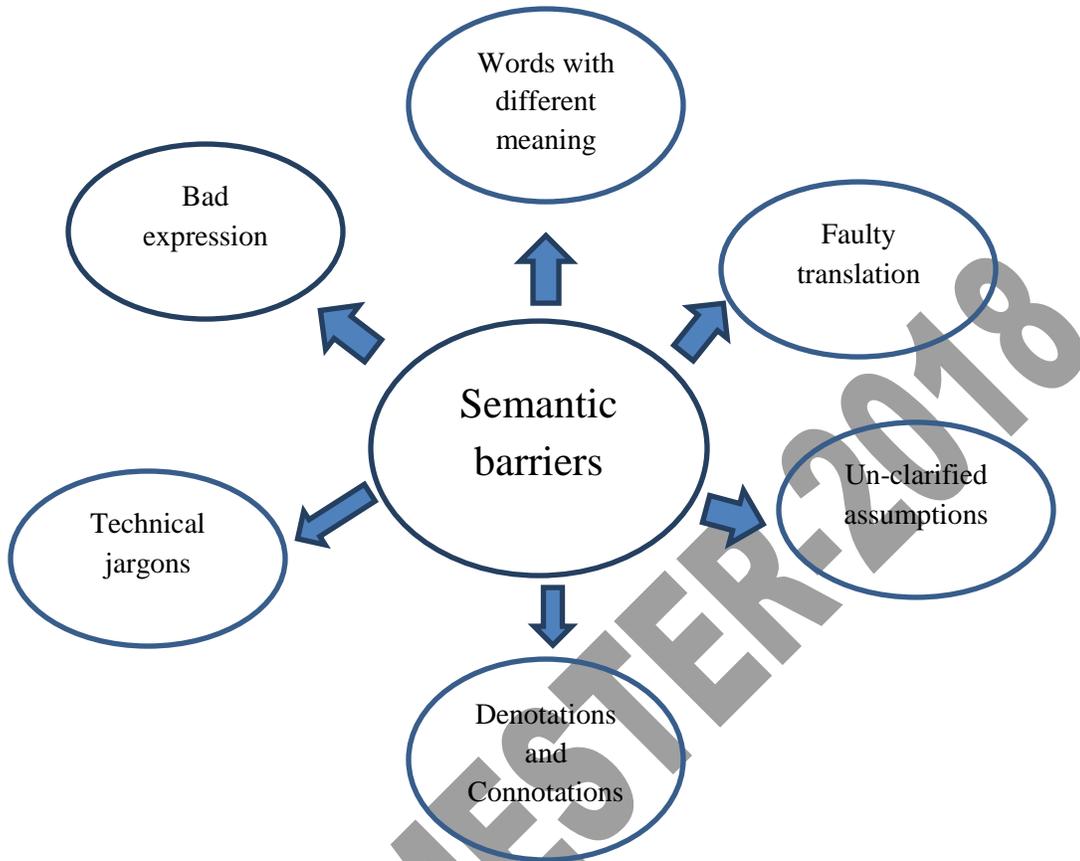
There are several barriers to effective communication which are listed below:

1. Semantic Barriers
2. Organizational Barriers
3. Psychological or Emotional Barriers
4. Personal Barriers

1. Semantic Barriers

Definition: The Semantic Barriers refers to the misunderstanding between the sender and receiver arising due to the different meanings of words, and other symbols used in the communication.

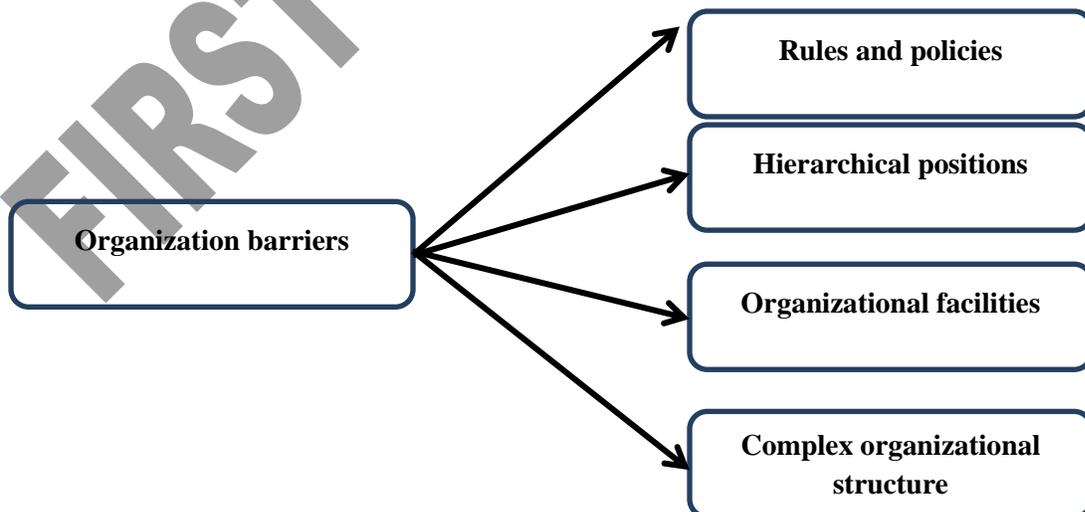
The semantic barriers usually arise when the information is not in the simple language and contains those words or symbols that have multiple meanings. Following are the main language barriers:



2. Organizational Barriers

Definition: The Organizational Barriers refers to the hindrances in the flow of information among the employees that might result in a commercial failure of an organization.

The major Organizational Barriers are listed below



a. Rules and Policies:

Often, organizations have the rule with respect to what message, medium, and mode of communication should be selected. And due to the stringent rules, the employees escape themselves from sending any message.

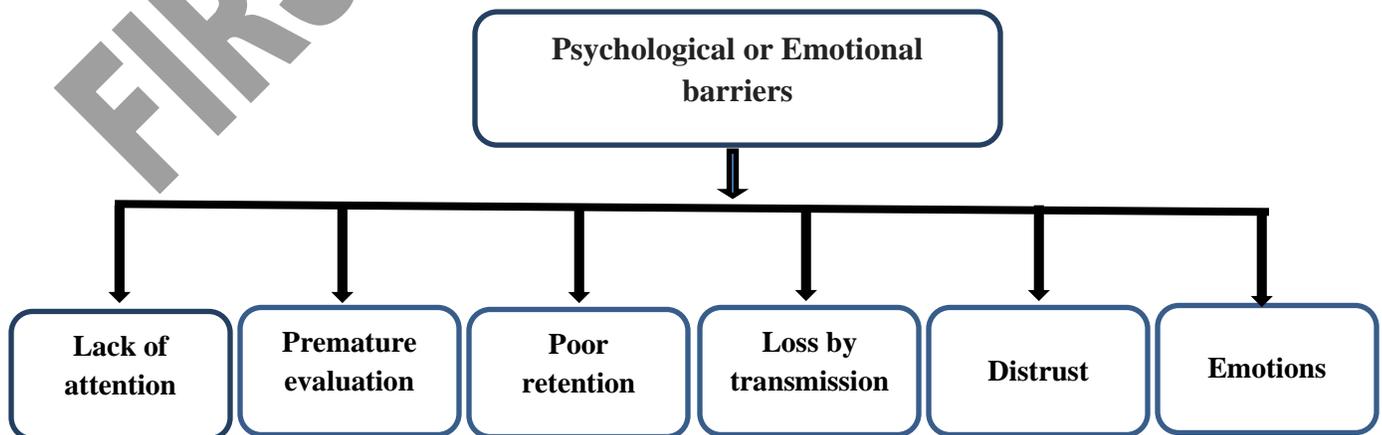
b. Status or Hierarchical Positions in the Organization: In every organization, the employees are divided into several categories on the basis of their levels of the organization. The people occupying the upper echelons of the hierarchy are superior to the ones occupying the lower levels, and thus, the communication among them would be formal. This formal communication may often act as a barrier to the effective communication.

c. Organizational Facilities: The organizational facilities mean the telephone, stationery, translator, etc., which is being provided to employees to facilitate the communication. When these facilities are adequately offered to the employees, then the communication is said to be timely, accurate and according to the need. Whereas, in the absence of such facilities, the communication may get adversely affected.

d. Complex Organizational Structure: The communication gets affected if there are a greater number of management levels in the organization. With more levels, the communication gets delayed and might change before reaching the intended receiver.

3. Psychological or Emotional barriers: The Psychological or Emotional Barriers refers to the psychological state i.e. Opinions, attitudes, status consciousness, emotions, etc. of a person that deeply affects the ability to communicate.

The communication largely depends on the mental condition of a person, if the person is not mentally or emotionally sound, then he cannot communicate effectively either as a sender or a receiver.



i. Lack of Attention: When the person is pre-occupied by some other things and do not listen carefully what the other person is speaking, then arises the psychological barrier in the communication.

ii. Premature Evaluation: Many people have a tendency to jump to the conclusions directly and form judgments without considering all the aspects of information. This is generally done by the people who are impatient and resort to a selective listening.

iii. Poor Retention: The retention refers to the capacity of a brain to retain or store things in the memory. The brain does not store all the information came across but in fact, retain only those which deems to be helpful in the future. Therefore, much of the information gets lost during the retention process, and this acts as a barrier to the effective communication.

iv. Loss by Transmission: The loss by transmission means, whenever the information exchanges hand its credibility reduces. It is most often observed in the case of an oral communication where people handle information carelessly and transmits the information which has lost some of its truth. Thus, the improper and lack of information being transmitted to others acts as a hindrance in the communication process.

v. Distrust: To have an effective communication, it is must that both the communicators (sender and receiver) trust each other. In case there is a lack of trust between both the parties, then they will tend to derive negative meaning out of the message and often ignore what has been communicated.

vi. Emotions: The communication is greatly influenced by the emotions of a person. If a person is not in a good temperament, then he would not listen properly to whatever is said and might say things offending the sender. Several other emotions such as anger, nervousness, confusion, restlessness, etc. affects the communication process.

Other barriers of communication can be classified under broad headings as follows

a. Relating to communicator

1. In-effective environment
2. Unorganized efforts to communicate
3. Standard of correctness
4. Standard of social responsibility
5. Cultural values and social organizations

6. Incorrect concept of communication process

b. Relating to the transmission of message

1. Incorrect handling of the channels
2. Wrong selection of channels
3. Physical distraction
4. Use of inadequate channels in Parallel

c. Relating to receiver

1. Attention of the listeners
2. Problems of cooperation, participation and involvement
3. Problem of homogeneity
4. Attitude of the audience towards the communicator

LECTURE-14

MESSAGE

Meaning & definition of message

A message can be defined as some alternations or disturbance of the physical environment, which can be attended to and discriminated from the rest of the physical environment. However, from the extension education point of view, a message is the facts, feelings, impressions, attitude, information etc. that a communicator wishes his audience to receive, understand, accept and act upon.

Messages for example, may consist of statements of scientific facts about agriculture, sanitation or nutrition, description of some phenomenon, or explanation of some actions being taken by individuals, groups or committees or reasons as to why certain kinds of action or steps should be taken for a particular action.

Dimensions of a message

As Berlo (1960) pointed out, at least three factors need to be taken into account in the message. They are the message code, the message content and the message treatment.

1. The message code: A code may be defined as any group of symbols that can be structured in a way that is meaningful to some group of elements (a vocabulary) and a get procedures for combing those elements meaningfully (a structure). Language is a code. Even painting involves a code.

Whenever we encode a message, we must make certain decisions about the code to be used. We must decide

- ii) Which code
- iii) Its elements and
- iv) The methods of structuring these elements

2. The message content: We can define content as the material in the message selected by the source to express his purpose. Content, like a code, has both elements and structure. If you try to present three pieces of information, you have to present them in some order or sequence.

3. The message treatment: We may define the treatment of a message as the decisions which the communication source makes in selecting and arranging both code and content in order to achieve comprehension on the part of receivers.

In general, message treatment refers to the decisions the source makes as to how he should deliver his message.

For example, given his code and content choices, a newspaper copywriter will use various type sizes to let his reader know that he considers some things more important than others.

Characteristics of a good message

According to Schramm (1964), the following conditions must be fulfilled if the message is to arouse its intended response.

- 1) The message must be so designed and delivered as to gain the attention of the intended destination.
- 2) The message must employ signs which refer to experience common to source and destination, so as to 'get the meaning across'.
- 3) The message must arouse personality needs in the destination and suggest some ways to meet those needs.
- 4) The message must suggest a way to meet those needs which are appropriate to the group situation in which the destination finds himself at the time when he is moved to make the desired response.

Further, as Leagans (1961) said, a good message must be

- 1) In line with the objectives to be achieved
- 2) Significant to the receiver, socially and economically.
- 3) Clear: understandable by the audience.

- 4) Specific, not vague.
- 5) Accurate and up-to-date
- 6) Appropriate to the channel
- 7) Timely

Message treatment

Treatment refers to the manner in which a message is handled to get the information across to an audience. It relates to the techniques or details of procedure or manner of performance, essential for effective presentation of the message.

The purpose of treatment is to make the message interesting, clear, understandable and realistic to the audience. The message, when communicated, must be comprehensible to the receivers. They must understand its meaning, perceive it as valid in terms of consonance, context and credibility as well as useful under their own situations.

Message distortion

According to Kirk (1953), the distortion of information may be of three fundamentally different kinds:

- (i) Systematic or stretch distortion
- (ii) Fog distortion and
- (iii) Mirage distortion

(i) Systematic distortion: In this distortion, no information is lost. Rather it is changed or recorded in an orderly or systematic way. Thus in this case the information is purposely changed in a systematic way to serve some specific objective. This type of distortion may be useful for extension workers for effective treatment of the message.

(ii) Fog distortion: In this distortion, information is lost, masked or fogged over, because of the inability of the communicator to encode and/or the inability of the receiver to decode the message with the complete fidelity.

(iii) Mirage distortion: This distortion gives us extra unwanted information. It is unwanted because it is likely to result in mistaking the distorted message as pertinent information, thus introducing error into prediction. While painting a rosy picture with regard to new ideas, may create a mirage-type distortion in the mind of the farmers.

LECTURE-15

7 C's and 4 S's

- ✓ **Credibility:** If the sender can establish his credibility, the receiver has no problems in accepting his statement.
- ✓ **Courtesy:** Once the credibility of the sender has been established, attempts should be made at being courteous in expression. In the business world, almost everything starts with and ends in courtesy. Much can be accomplished if tact, diplomacy and appreciation of people are woven in the message.
- ✓ **Clarity:** Absolute clarity of ideas adds much to the meaning of the message. The first stages clarity in the mind of the sender.
- ✓ **Correctness:** At the time of encoding, the sender should ensure that his knowledge of the receiver is comprehensive. The level of knowledge, educational background and status of the decoder help the encoder in formulating his message. In case there is any discrepancy between the usage and comprehension of terms, miscommunication can arise.
- ✓ **Consistency:** The approach to communication should, as far as possible, be consistent. There should not be too many ups and downs that might lead to confusion in the mind of the receiver.
- ✓ **Concreteness:** Concrete and specific expressions are to be preferred in favor of vague and abstract expressions.
- ✓ **Conciseness:** The message to be communicated should be as brief and concise as possible. Weighty language definitely sounds impressive but people would be suitably impressed into doing precisely nothing.

C's	Relevance
Credibility	Builds trust
Courtesy	Improves relationships
Clarity	Makes comprehension easier
Correctness	Builds confidence
Consistency	Introduces stability
Concreteness	Reinforces confidence
Conciseness	Saves time

4 S's

- ✓ **Shortness:** "Brevity is the soul of wit," it is said. The same can be said about communication. If the message can be made brief, and verbosity done away with, then transmission and comprehension of messages is going to be faster and more effective.
- ✓ **Simplicity:** Simplicity both in the usage of words and ideas reveals clarity in the thinking process. It is normally a tendency that when an individual is himself confused that he tries to use equally confusing strategies to lead the receiver in a maze.
- ✓ **Strength:** The strength of a message emanates from the credibility of the sender. If the sender himself believes in a message that he is about to transmit, there is bound to be strength and conviction in whatever he tries to state.
- ✓ **Sincerity:** A sincere approach to an issue is clearly evident to the receiver. If the sender is genuine, it will be reflected in the manner in which he communicates.

4 S's

S's	Relevance
Shortness	Economizes
Simplicity	Impresses
Strength	Convinces
Sincerity	Appeals

Grapevine communication

The informal channel of communication is also known as 'Grapevine'. It is the result not of any official action, but of the operation of social forces at work-place. The term 'grapevine' arose during the days of U.S. Civil War. At that time, intelligence telephone lines were strung loosely from tree to tree in the manner of a grapevine, and the message thereon was often distorted; hence any rumour was said to be from the grapevine. Today the term applies to all informal communication.

While formal communication exists to meet the utilitarian needs of the organization, informal communication is the method by which people carry on social, non-programmed activities within the formal boundaries of the system. It, thus, exists outside the official network. Though continuously interacting with it. This informal channel is generally multiple in nature; same person having social relationships with a number of people working in the same organization.

Types of Grapevine

Four types of informal communication channels have been identified so far: single strand, gossip, probability and cluster. In single standard network, the individual communicates with other individuals through intervening persons. In the gossip network, the individual communicates non-selectively. In probability network, the individual communicates randomly with other individuals according to the law of probability. In the cluster network the individual communicates with only those individuals whom he trusts. Out of these informal networks, the cluster is most popular.

Unit-II Method of Communication

LECTURE-16

FORMS OF COMMUNICATION

1. Downward Communication	
Oral	Written
1. Personal instructions	1. Orders and instructions
2. Lectures, conferences and meetings	2. Letters, memos, circulars
3. Interviews, counseling	3. Bulletin and notice boards
4. Social and cultural affairs	4. Posters
5. Grapevine; rumors	5. Hand books and manuals
	6. Annual reports
	7. House organs
	8. Union publications
2. Upward Communication	
Oral	Written
1. Face-to-face conversation	1. Reports
2. Interviews	2. Personal letters
3. Meetings and conferences	3. Grievances
4. Social and cultural affairs	4. Suggestions system
5. Grapevine, rumors	5. Complaints system
6. Union channels	6. Attitude and moral surveys
7. Telephone and other devices	7. Union publications
3. Horizontal Communication	
Oral	Written
1. Lectures, conferences, meetings	1. Letters, memos, reports
2. Telephone and other devices	2. House organ
3. Social and cultural affairs	3. Handbooks and manuals
4. Grapevine, rumors	4. Annual reports
5. Grapevine, rumors	5. Union publications

Methods of Communication

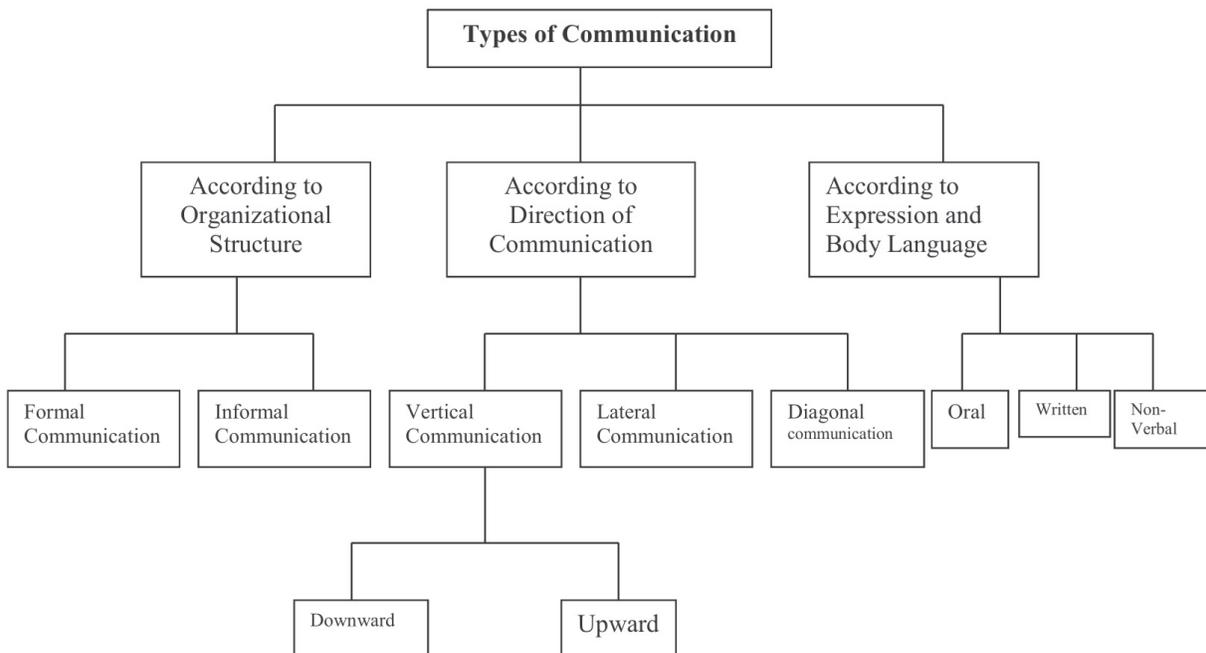
The meaning of Communication methods refers to those methods which are used for the message transmitting. Usually in the modern age, there are many methods of the communication yet this

fact is also true that the success of the communication depends upon the communication methods.

Thayar (1968) has divided the administrative communication in four ways:

1. Informative Communication–In it information of different types are exchanged.
2. Inductive Communication–To send any instruction or order.
3. Evaluative Communication–To use the communication for the evaluation.
4. Motive Communication–To encourage their subordinates for doing the work.

Organizational Communication



LECTURE-17

A) According to organizational structure

1. Formal communication: Such communications are those communications, which are associated with the formal organization structure. The travel through the formal channels - Officially recognized positions in the organization chart. They are established mainly by the organization structure. Formal communications are mostly in black and white. We generally hear the phrase ‘through proper channel’. It explains the essence of formal channels. Such communications include orders, instructions, decisions or intensions etc., of the superior.

2. Informal Communications: Informal Communications are also known as “Grapevine Communications”. They are free from all sorts of formalities, because they are based on the

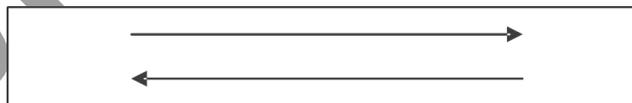
informal relationship between the parties, such as friendship, membership of the same club or association or origin from the same place. Such communication include comments, suggestions of any other informal reaction also. They may be conveyed by a simple glance, gesture, nod, smile or mere silence too.

B) According to Direction of Communication

1. Downward Communications: Communications which flow from the superiors to subordinates are known as downward Communications. They include orders, rules instructions and policy directives etc. Their nature is directive. It would be impossible to manage an enterprise without downward Communications.

2. Upward Communications: Upward Communications are just reverse of the downward communications. It flows from the sub-ordinates to their superiors. Such communications include reactions and suggestions from workers, their grievance etc. Contents of the upward Communication are reports, reactions, suggestions, statements and proposals prepared for the submission to the boss etc. Upward Communication is considered to be a main source of motivation in employees.

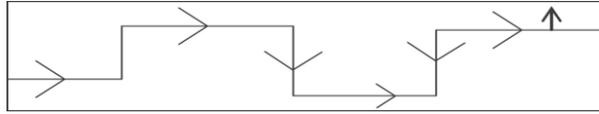
3. Lateral / Horizontal Communication: This type of communication refers to communication between various departments or units representing the same level, or people within the same or different departments, without having a superior – sub-ordinate relationship viz., peer groups, friends and trainees. It flows between persons at the same hierarchical level. The main object of this type of communication is to co-ordinate the efforts of different departments performing different but related activities. Such communications may be oral or written.



LECTURE-18

4. Diagonal Communication: In an organization, communication does not necessarily traverse along a stipulated path. While vertical and lateral forms for transmission of messages are important, there is yet another mode to be taken cognizance of, that is, the diagonal. In this type of communications, there is no direct path chalked out for information to travel. It could, at certain stages, take on the upward path, then a lateral direction and finally, move downward, or it could even skip certain stages.

This channel proves to be very affective as hierarchical bindings are done away with and communication flows irrespective of position or status. It also helps in building relationships and binding ties between the superior and the subordinate.



c) According to expression and body language

1. Oral or verbal communication: In oral communications both parties to the process of communication exchange their ideas through oral words either in face-to face communication or through any mechanical device such as telephone, etc. Meetings and conferences, lectures and interviews are other media of such communications.

2. Written communication: They are communications on black and white. They include written words, graphs, diagrams, pictures etc. They may take the form of circulars, notes, manuals, reports, posters or memos etc.

3. Non-Verbal Communication: Non-Verbal Communication is an integral part of us and helps in communicating effectively. The way an individual positions himself, holds his hands, tilts his head, all transmit volumes about the individual.

Unit-III: Extension Teaching Methods

LECTURE-19

Extension teaching methods

A method is a way of doing something, an orderly arrangement of a set of procedures. Thus it involves a sequence of progressive steps in an orderly and logical regularity in order to accomplish some task or purpose.

An extension teaching method may, then, be defined as a sequence of progressive steps, undertaken to create situations that are conducive to effective learning.

According to Leagans (1961), extension teaching methods are the devices used to create situations in which communication can take place between an instructor and that learner.

As Ensminger (1957) said, before an extension worker can become efficient in the use of methods, he must know what methods are available, when to use a given method, and become effective in using each.

However, normally no extension worker has ability to use all methods with equal skill. Further, there is no one method that is best for all situations alike and hence calls for different method (s).

It is also obvious that no one method can reach all the audience. Behavioural changes required on the part of the learners may also require several exposures with the same, different or a combination of methods. Research bears ample evidence to suggest that a combination of methods or media-mix is required for effective technology transfer.

Functions

The following are the functions of extension teaching methods :

- (1) To provide communication so that the learner may see, hear and do the things to be learnt.
- (2) To provide stimulation that causes the desired mental and or physical action on the part of the learner.
- (3) To take the learner through one or more steps of teaching-learning process, viz. attention, interest, desire, conviction, action and satisfaction

Classification

Wilson and Gallup (1955) classified extension teaching methods according to their use and form.

Bains (1987) attempted to classify them according to their use, form, stages of learning process, stages of adoption process, categories of adopters, initial cost involved, cost per unit of results obtained, skill required in using them, time consumed in using them and according to

behavioural changes intended. However, most of these classifications are only of academic interest. The most widely used as well as useful classification of extension teaching methods is according to use.

LECTURE-20

Classification of extension teaching methods according to use

Individual Contact	Group Contact	Mass Contact
Farm and home visit	Result demonstration	Farm publication
Farmer's call	Method demonstration	Mass meeting
Personal letter	Group meeting	Campaign
Adoptive or minikit trial	Small group training	Exhibition
Farm clinic	Field day or farmer's day	Newspaper
Flag method	Study tour	Radio
Agricultural clinic	Peripatetic team meetings	Television
	Agricultural games	Posters
	Conducted tours	Farmers' fair
	Training camps, crops school	Extension pamphlets, bulletins, leaflets, circular letter

Another classification of extension teaching methods which is very common in extension publications is according to their form

Written	Spoken	Visual	Spoken and Visual
<ul style="list-style-type: none"> ✓ Bulletins ✓ Leaflets ✓ Personal letters ✓ Circular letters ✓ Farm journals 	<ul style="list-style-type: none"> ✓ Meetings ✓ Farm and home visit ✓ Office calls ✓ Radio and recordings ✓ Telephone calls ✓ Agricultural clinic ✓ Flag method 	<ul style="list-style-type: none"> ✓ Result demonstrations ✓ Exhibits ✓ Posters ✓ Charts ✓ Slides ✓ Film strips ✓ Flash cards ✓ Flannel graphs ✓ Bulletin boards 	<ul style="list-style-type: none"> ✓ Method demonstration ✓ Result demonstrations ✓ Television ✓ Movies ✓ Puppets ✓ Campaigns

INDIVIDUAL CONTACT METHOD

Extension methods under this category provide opportunities for face-to-face or person-to-person contact between the rural people & the extension workers. These methods are very effective in teaching new skills & creating goodwill between farmers & the extension workers.

The advantages of the individual method are :

- a. It helps the extension agent in building rapport.
- b. It facilitates gaining first hand knowledge of farm and home.
- c. It helps in selecting administrators and local leaders.
- d. It helps in changing an attitude of the people.
- e. It helps in teaching complex practices, and
- f. It facilitates transfer of technology effectively.

The limitations of the individual method are:

- a. This method is time consuming and relatively expensive.
- b. It has low coverage of audience, and
- c. Extension agent may develop favoritism or bias towards some persons.

FARM AND HOME VISIT

Farm and home visit is a direct, face-to-face contact by the extension agent with the farmer or homemaker at their farm or home for extension work.

Objectives

1. To get acquainted with and gain confidence of farmers and homemakers.
2. To obtain and/or give firsthand information on matters relating to farm and home.
3. To advice and assist in solving specific problems and teach skills.
4. To sustain interest.

Audio-visual aids

The term audio-visual aid has a specific meaning. Literally, audio refers to sound waves that can normally be heard by the human ear. Similarly, the term visual implies relating to the sense of seeing. The expression 'aids' implies those instructional devices or teaching aids which make teaching more effective.

Audio-visual aids are those instructional devices that may be used by a teacher or a communicator in order to facilitate better understanding on the part of learners by involving their many senses, particularly those relating to seeing and hearing.

LECTURE-21

Definitions of audio-visual aids

Dale (1965) stated: all materials used in the classroom or other teaching situations to facilitate the understanding of the written or spoken words are audio-visual aids.

According to Kinder (1959): audio-visuals may be any device which can be used to make learning experiences more concrete, more realistic and more dynamic.

Ahluwalia (1967) stated that these are those devices that transmit ideas and the experience through eyes and ears. They emphasize the use of non-verbal experiences in the learning process.

According to Hass and Packer (1964), an audio-visual aid is an instructional device that can be heard and seen.

DeKieffer and Cochran (1966) define audio-visual aids as those materials, by the wise selection and use of which, experience can be provided which will develop understanding and enhance thinking.

According to Chakrabarti (1962), any materials used to reinforce the spoken word in teaching, which contribute to better learning by the students, can be termed as audio-visuals.

An analysis of all these definitions brings out some key elements, such as they aid or help the teacher, they are to be used to facilitate better understanding on the part of learners, and that this is to be achieved by involving learners' many senses, particularly those of seeing and hearing.

For example, a study conducted by Haas and Packer (1964) showed that learning takes place through the various senses as under:

Sight	87.0%
Hearing	7.0%
Smelling	3.5%
Touching	1.5%
Tasting	1.0%

Classification of Audio-Visual Aids

There are many ways to classify audio-visual aids. The following classification systems seem to be quite useful and adequate.

According to evolution

- **First generation media:** Handmade charts, graphs, exhibits, models, hand written material etc.
- **Second generation media:** Printed/illustrated texts, printed graphics, workbooks etc.

- **Third generation media:** Photographs, slides, film-strips, films, recordings, radio, tele-lectures etc.
- **Fourth generation media:** Television, programmed instruction, language laboratories, electronic digital computers.

According to senses involved

Audio Aids

Radio talks
Tape recordings
Disc recording

Audio-Visual Aids

Motion pictures
Telecasts
Video recordings
Sound-synchronized slides radio-vision

Visual aids

Two-dimensional visuals

a) projected

Film
Slides, film-strips
Opaque material
Overhead transparencies

b) Non-projected

(i) Presentation

(ii) Display

(iii) Literature

Three-dimensional visuals

Models
Specimens and samples
Real objects
Mock-ups
puppets
3-D films

Flash cards
Flannel graphs
Charts
Flip books
Maps
Bulletin boards
photographs
Posters
Wall charts
Exhibits
Illustrated
Leaflets

LECTURE-22

According to contribution to learning

Dale (1965) classified audio-visual aids according to their contribution to learning, ranging from maximum to minimum as below:

- ✓ Direct purposeful experience
- ✓ Contrived experience
- ✓ Dramatized experience
- ✓ Demonstrations
- ✓ Field trips
- ✓ Television
- ✓ Motion pictures
- ✓ Recordings, radio, still picture
- ✓ Visual symbols
- ✓ Verbal symbols

Advantages of audio-visual aids

Dale (1965) has listed the following advantages of using audio-visual aids:

- (1) Reduce verbalism
- (2) Make learning permanent
- (3) Add interest and involvement
- (4) Stimulate self-activity
- (5) Provide direct pent-up interest
- (6) Develop continuity of thought
- (7) Develop meaningful vocabulary
- (8) Enlarge the range of possible experience
- (9) Teach efficiently
- (10) Add highly useful variety
- (11) Improve the effectiveness of other materials
- (12) Multiply messages

Limitations of audio-visual aids

Use of audio-visual aids has a number of limitations, some of which are given below:

- (1) Audio-visual aids do not necessarily give a true picture of the ideas they present.

- (2) Audio-visual aids do not always contribute meaningful content to the topic under study
- (3) All audio-visual aids are not always appropriate for the age, intelligence and experience of the learners.
- (4) All audio-visual aids are not always worth the time, expense and effort involved.
- (5) Audio-visual aids do not always solve the problem of individual differences amongst the learners in terms of their ability to perceive and understand.
- (6) Many of them suffer from what Dale (1965) calls COIK fallacy, i. e. clearly only if know.
- (7) By introducing audio-visual aids in a teaching-learning situation, many physical and psychological disturbances are likely to be produced.

LECTURE-23

FACTORS AFFECTING SELECTION AND USE

The following are some of the factors that may influence the selection and use of extension teaching methods.

1. *The behavioural changes expected in people i.e. change in knowledge, skills or attitude* : We all know that most mass media methods are good for effecting changes in attitude and knowledge of the people, while most individual and group methods are useful for bringing about changes in knowledge and skills.
2. *Nature of subject matter being taught* - particular aspect of the technology and whether understanding depends on seeing or not.
3. *Nature of audience* - their age, education, interest, experience, knowledge, intelligence etc.
4. *Number of persons to be covered*: Individual and group contact methods are slow and cannot cover a large population in a relative short period. Hence if the population to be covered is large and time available is relatively short, mass contact methods may be more effective.
5. *Availability of mass media to the clientele*: If farmers own radio, TV and subscribe to farm journals, newspapers and buy extension publications, they can be effectively reached through such media. However, if the

availability of any or all sources of information is limited in any area, it will be difficult to communicate with them, unless the information sources available to them are utilized.

6. *Skill on the part of extension worker for the use of different extension methods:* All extension workers are not equally efficient in the use of all the extension teaching methods. Hence they will tend to use relatively more of those methods with which they are familiar.

7. *Cost involved:* Some methods are relatively more costly to use than others. Hence the initial investment required and the availability of related equipment and facilities may encourage or discourage the use of some methods.

8. *Basic facilities needed:* Some methods need electricity, dark room, projection screen, projectors and so forth. Hence such methods can only be used if such facilities are available at a place and time when needed.

Unit-IV: Role of mass media in rural development

LECTURE-24

Mass Media: The means of communication that reach large numbers of people in a short time, such as television, newspapers, magazines, and radio

Those means of communication that reach and influence large numbers of people, esp. newspapers, popular magazines, radio, and television (Collin dictionary)

The mass media are diversified communication technologies that reach a large audience by means of communication

Mass Media Definition

Technically, mass media is any transmission of information that reaches large numbers of people, usually within a short time frame, in a *one-to-many* communication flow. It can also be referred to as *mass communication*. The information transmitted could be **news, entertainment, advertising or public service announcements.**

Typical media types used include:

- Television
- Radio
- Newspapers
- Outdoor advertising such as billboards
- Magazines
- Movies, concerts, shows, and events that attract large crowds
- Internet websites
- Social media*
- Mobile*
- Email*

* Social media, mobile, and email mass communications present special case

Characteristics of mass media

- ✓ **Communication** is mostly one way
- ✓ Audience has great deal of choice
- ✓ Reach large & vast audience
- ✓ Aim messages to attract largest audience possible
- ✓ Influence society & are in
- ✓ Turn influenced by society

Functions of Mass media

- ✓ Information
- ✓ Consensus
- ✓ Entertainment
- ✓ Symbolic Function
- ✓ Advertising
- ✓ Development

Development communication that focuses on the needs of the underprivileged & oppressed & their socio-economic & cultural interests & needs.

Advantages of Mass Media

- Reaches many people quickly
- Low cost per person reached

Can be used to

- Tell people about new ideas & services
- Agenda setting & advocacy
- Created favourable climate of opinion

Disadvantages of Mass Media

- Difficult to make specific to local community
- Fixed message
- Can be easily misunderstood
- Access often difficult
- Lacks feedback

Less appropriate for:

- Changing behaviours rooted in culture or reinforced by social norms

- Promoting empowerment
- Learning practical skills
- Developing skills of informed decision making

Role of mass media in dissemination of farm technology

Mass media approaches to agricultural information dissemination generally are useful in reaching a wide audience at a very fast rate.

Mass media could play an important role in disseminating information towards agriculture development and, hence, poverty alleviation.

Mass media is found to be a veritable tool for creating awareness and mobilizing farmers on the importance of change towards new science-based agricultural findings.

Social integration & communication network

To communicate the feasible farm technologies in such a manner to attract the attention of farmers,

Help them to understand and remember the message and ultimately facilitate them to take appropriate decision.

Effect of media mix for rural people

Modern Communication technologies

21st century is the age of computer and due to this, Information Revolution has begun. In this age of Information Revolution a new image of “Cyber Space” came in light. Cyber Space is a virtual space which includes computers and their feed up data and the transmission system of these data which is called Information Highway. New communication technologies such as computer, microcomputers, cable TV, Teleconferencing, Tele-conference and desktop publishing are all examples of advances in communication technology.

Computer

Computer is a wonderful contribution of the modern science. In the present times it is very necessary and useful in every field of life. In the field of science and technology no any invention is so much useful among the various inventions which has affected the human life to this extent as computer has influenced the life.

What is Computer?

- (1) Computer is an electronic machine of general use which is based upon the automatic technology and is capable for doing those works whose software is collected or stored in it.
- (2) Computer is a mechanical instrument.

- (3) The information are collected by the computer, stored in the determined process and then the results are presented.
- (4) Computer is a machine that collects the information, data and after modifying them, these data are presented in the definite process.
- (5) Computer is such an electronic machine in which the data is stored after the necessary change is done and there is capacity to regain them.

On the above basis there are the following characteristics in the computer:

- (i) It has more speed of doing works.
- (ii) There is more accuracy in the results.
- (iii) It has the capacity to revise the works.
- (iv) It has the ample capacity to store the data/information.
- (v) The computer has the capacity of doing the works automatically.

Types of Computer: Computer can be classified into three categories according to its functions.

(i) Analog computer: In these computers, similarities are established in the form of current or voltage signal. They operate by measuring an electrical signal produced analogous to the variable of physical system. An analog computer operates on data in the form of continuously varying quantities such as temperature or pressure. Example of analog device is computer used for measuring a patient's heart function, temperature and other vital signs.

(ii) Digital computer: A computer which operate essentially on digits is known as digital computers. It manipulates discrete data and performs arithmetic and logic operations on these data. It uses information including letters and other symbols, in coded form represented by two state electric components. It can store different programs and can thus be used innumerous applications.

(iii) Hybrid computer- Hybrid Computer is a combination of computer having desirable features of analog and digital computers. In such a computer, some calculations are done in analog portion and some are done in the digital portion of the same computer. These computers are used in most sophisticated areas such as space flights, dropping of bombs on the targets, monitoring the space activities etc.

In the modern times the computer is the main basis of all systems of the information. All systems are working effectively by the computer.

Micro-computer:

Computers are classified as mainframes, minicomputer and micro computers based on their power, speed of executing a set of instructions and the amount of memory available to store data as well as the degree of inter connectivity the computers offer. Mainframe computers were large and costly. Mini computers are less powerful. Microcomputers are based on micro-chips technology. In India micro computers were introduced in 1978. There are many uses of microcomputers as given below:

1. It can process all kinds of information and keep as record to be retrieved as and when needed. It can be a repository of various experiences, cases and research information on required topics, a training institution may keep all its record on training courses and trainees for evaluation and reporting. Such information can be used for monitoring purposes by headquarters.
2. It can publish information material at reasonable cost for extension purposes.
3. Micro-computers can communicate with each other if linked together. With the help of certain hardware i.e. micro-computer, modem (a device which translates computer signals into phone signals and vice-versa), a printer, telephone and microwave or satellite, computers can enable users to access the data from anywhere through micro computer and phone.

What is networking?

A network is the means by which computers share and exchange information and resources across either short distances (Local Area Networks) or globally (wide Area Networks). Making the best use of networking technology is about optimum use of business resources, enhancing productivity and efficiency, reducing costs and gaining competitive advantage. Networking enables everyone in an organization to communicate with and share resources with everyone else giving them access to data held in individual PC's, by remote office sites or external suppliers and giving users the ability to share printers, fax, CD ROM and modem etc. Networks can be designed for organizations of all sizes from the small office with between two and ten work stations to the largest international corporations linking thousands of work stations.

What is Internet?

Computer network is such a group of computers that is connected to each other in such a way that they exchange the information among themselves. All these computers are connected jointly with the telegram, telephone and satellite, etc. According to Leaner(1994), Internet is the network of an international networks i.e. a very big network in which there are connected 31000 network systems of about 100 nations and 20 million people belonging to diversified fields such as education, science, government and business. Internet has the capacity to exchange the

information inside and outside of the organization. An Intranet is a private system that uses hardware and software developed for the internet to provide communication, information management and information publishing services within an organization’.

Intranet

When computer is working on the L.A.N (Local Area Network), it is called Intranet and when it works on WAN (Wide Area Network) it is called Internet. As today Internet has become the best repository of information in the world, similarly the Intranet can also be made such a repository of information which can be used by all the people of the office.

Telnet

Through this system the individual, starting his computer by remote system also can work on other computer. Telnet is a protocol by which the errors of computers can be tackled and contact can be made soon and easily on other computers.

Electronic Mail (E-mail)

E-mail is the short form for Electronic Mail, which is based on the use of computers for the transmission of messages rather than through the postal system. E-mail connects the communication process through computer among the people. In it, an individual types his message in the computer and the information is sent to the other man via telephone. The other man himself opens your file and reads the message, in the same manner he transmits the message. In this system, the computer plays a role of post-office. Through E-mail you can correspond anywhere in the whole world. E-mail has the following advantages:

1. It connects two busy people. The sender may not know where the receiver is located. Sender may refer to user code address which the user may retrieve at convenience.
2. It is cheaper than sending message by telex or fax.
3. It makes communication faster as it eliminates time spent to type, edit, dispatch and deliver.

Faci-mail

It is a device used for transmission of a written document, photographs, map (or) any other graphic material electronically. It is one of the variants of E-Mail. For transmission, the original documents are placed in the faci-mail or fax machine which scans the document and converts the written or graphic information into electronic signals and establishes a link up with similar receiving fax machine at the receiving end. The main advantage of faci-mail like E-Mail is that it cuts the travel time, and cost.

Tele-Text

It is an electronic magazine that can be broadcasted on television at your home. It is a form of the newspaper in which we can read different types of the news. This facility is available on the high standard television sets in which the instruments are fitted to get the acknowledgements from the magazine. On the Tele-text, the information are transmitted to their members by different companies.

Video-Text

It is a two-sided pictorial system that is connected on one side to the sender of the information and on the other side to the receiver via computer. Micro computers are connected to the telephone system which transmit the information. Through this medium also, the information can be relayed anywhere in the world.

Video text and teletext have common features and uses except the mode of transmission which in case of teletext is through broadcast system. It is one way system

Tele-Conferencing

Teleconferencing is interactive group communication. Teleconferencing refers to a system for creating dialogue between geographically dispersed participants. Advances in telecommunication and computer have made it possible to hold meetings without travelling to long distances. Teleconferencing can help physically distant people talk together. It is of two types.

(i) Audio-conferencing: the simplest form of teleconferencing is the use of amplified speaker phones to join groups of people at each end of a telephone conference. High quality audio reception and transmission can be achieved.

(ii) Video-conferencing: Video conferencing means adding video channels to an audio link between two (or) many groups. Experts sitting in the studios listen to the questions and answers live on television. The system reduces the need for travel and is of much help to the farming community of different products in remote areas.

Telephone and Mobile

Telephone is also one of strong way of communication. In India the tele density- the number of telephone mainlines per 1000 peoples has significantly improved between 1997 and 2002.

Global Village

The Global telecommunication network enables us to cross the boundary anywhere in the world. The capacity of exchange of information on a global basis has been made possible through a powerful communication tool - the satellite, which has shrunk the world into a global village.

Digital Library in Extension Training

A digital Library was designed and developed to provide extension service for Greek beekeepers. It was designed on the basis of a thorough analysis of information needs of beekeepers and system requirement.

The digital Library provides information on the five main areas on which the need for information has been expressed viz.:

- (i) Bee biology and colony manipulation.
- (ii) Bee keeping products.
- (iii) Biological and environmental issues.
- (iv) Financial and law issues.
- (v) Management skills.

The information is globally accessible through the World Wide Web (WWW) and is easily extensible, as information can be added.

A central www server is used as an intermediary between the beekeepers and the five individual hyper bases (Hyper Media Digital Library). Using the www client software, the user can browse through the information stores in each of these five hyper bases or alternatively create and submit a query and co-operatively retrieve relevant information. It is believed the hypermedia digital library could be part of a new approach in education, training and development process for Greek beekeepers as it facilitates immediate access to up-to-date information and faster and easy communication between beekeepers and information providers. Likewise, the same system can be used as local based in multiple ways.

Satellite Application

Satellite is an artificial flying machine and is used for disaster management and warning. Using the satellites service, NIC's satellite based computer communication network was started in the year 1988.

Audio-Cassette Technology (ACT)

Tape recorder is now very common medium in Indian home for listening to music. The technology has become cheap to run and accessible. Experiences in many developing countries suggest new possibilities for use in extension work.

Print Media

Print media is the most live and effective mode of writing in the modern times. In its initial form the journalism, representing the public interest strongly in the form of an effective weapon against the evils of administration. But today it has become an effective part of life. In the present times there are a lot of communication mediums. The newspaper/magazine has its own important place. This is the reason that today the newspaper/magazine is recognized as the single carrier of public-conscience.

Although it is also the fact that the journalists are suffered and the journalism is misused also. But it is not very common. The common factor of journalism is only to get advantage. Through this media the politics is running at national level as well as international level and the journalists reaching the most difficult places bring the latest news for their readers. In this way there is occurred communication in the structure of the society.

Radio

Radio is the oldest IT tool and provides entertainment to masses to a great extent in recent past. Its reception facilities through local radio, regional broadcasting stations and FM transmitters have increased dramatically.

Television

Being for communicating with audience with low literacy skills, an audio-visual medium, TV, has been more advantageous than any other medium. The large number of TV transmitters, Doordarshan and other channels cover the entire population. India started black and white Television broadcasting in 1959 and TV programme especially for agriculture extension started in 1975-76.

Video:

Video is an important feature of advancement in communication technology. It provides the facility of audio-visual communication like film or television but with less difficulty and added advantages. This is the reason why video has spread all over the world with electrifying speed. It is now easily accessible in India. Government of India with the support of the World Bank has special plans to use video in agricultural extension work. Miniaturization of video equipment and easy availability in cities and villages alike make this small medium appropriate for extension work.

Video is unique medium for audio-visual communication. It is decentralized and thus useful to communicate local messages among groups with similar characteristics. The images are sharp unlike films. Videos have smaller viewing screen with its fixed height to width ratio of 3:4. It is a medium greatly dependent on close-ups unlike films, which have greater resolution (more picture elements per frame). Unlike television, video does not require large broadcasting equipments or infrastructure. Small screen of video, placed in quiet corner of home, provides many plus points. Audiences, comfortable in bed or seats, with eyes fixed on the small screens are more concentrated.

Keywords

Interaction: It implies that more than one element is involved and that the elements are not static but are changing and interacting

Process: Involves movement. It is a means of getting from one place to another.

Whenever, two or more functions are performed one after another to realize a particular objective

System: A system is a combination of two or more components or parts, put together in an orderly way to achieve a given purpose

Encoding: It is a process of interpreting the message

Decoding: It is a process of receiving the message

Knowledge: Intimate acquaintance with facts

Understanding: Relationship between facts

Communicator: He is the person who start the process of communication. He is the sender of message

Message: It is the information the communicator wishes his audience to receive, understand and act upon

Channel: It is anything which connects the communicator with the communicatee or group of people

Treatment: It is the way we put across the message through channel

Audience response: It is the response given by the audience to the message of the communicator

Credibility: Trustworthiness and competence

Fact: It is a thing done, an actual occurrence, a piece of information having objectivity reality

Interpretation: It is the explanation of the meaning of a fact or statement

Stimulus: A stimulus is any event which an individual is capable of sensing

Response: A response is anything that the individual does as a result of perceiving the stimulus.

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