FUNDAMENTAL OF RURAL SOCIOLOGY & EDUCATIONAL PSYCHOLOGY

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This eCourse Developed By
TNAU (ICAR)

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01. EXTENSION EDUCATION

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Extension - Meaning

The word extension is derived from the latin roots 'ex' - meaning 'out' and 'tensio' meaning 'stretching'. Stretching out is the meaning of extension. The word 'extension' came to be used originally in USA during 1914 which means "a branch of a university for students who cannot attend the university proper". In other words, the word extension signifies an out of school system of education.

Education is an integral part of extension. The basic concept of extension is that it is education. Extension means that type of education which is stretched out to the people in rural areas, beyond the limits of the educational institutions to which the formal type of education is normally confined.

Education: It is the production of desirable changes in knowledge (things known), attitude (things felt), and skills (things done), either in all (or) one or more of human behavior.

Basic definitions related to extension

Extension education is an applied social science consisting of relevant content derived from physical, biological and social sciences and in its own process synthesised into a body of knowledge, concepts, principles and procedures oriented to provide non-credit out of school education largely for adults.   - Paul Leagans (1971).

Extension service refers to a program for agricultural development and rural welfare which (usually) employees the extension process as a means of program implementation.

Extension process is that of working with rural people through out of school education along those lines of their current interest and need which are closely related to gaining a livelihood improving the physical level of living of rural families and fostering rural community welfare.

Scope of Extension Education

Extension appears to have unlimited scope in situations where there is need for creating awareness amongst the people and changing their behavior by informing and educating them.

Kelsey and Hearne (1967) identified nine areas of programme emphasis, which indicate the scope of agricultural extension.

1. Efficiency in agricultural production.
2. Efficiency in marketing, distribution and utilization.
3. Conservation, development and use of natural resources.
4. Management on the farm and in the home.

5. Family living.

6. Youth development.

7. Leadership development.

8. Community development and rural area development.

9. Public affairs.

Extension is an integral part of agricultural and rural development programmes in India. The progress in production which has been achieved in agriculture, horticulture, animal husbandry, veterinary, fishery, social forestry, sericulture etc., may be thought of as proportional to the strength of extension service of the relevant government departments. The following statements will further amplify the scope of extension.

1. Extension is fundamentally a system of out-of-school education for adults and youths alike. It is a system where people are motivated through a proper approach to help themselves by applying science in their daily lives, in farming, home making and community living.

2. Extension is education for all village people.

3. Extension is bringing about desirable changes in the knowledge, attitudes and skills of people.

4. Extension is helping people to help themselves.

5. Extension is working with men and women, boys and girls, to answer their felt needs and wants.

6. Extension is teaching through "learning by doing" and "seeing is believing".

7. Extension is working in harmony with the culture of the people.

8. Extension is a two-way channel; it brings scientific information to village people and it also takes the problems of the village people to the scientific institutes for solution.

9. Extension is working together (in groups) to expand the welfare and happiness of the people with their own families, their own villages, their own country and the world.

10. Extension is development of individuals in their day-to-day living, development of their leaders, their society and their world as a whole.

The need for extension arises out of the fact that the condition of the rural people in general, and the farm people in particular, has got to be improved. There is a gap between what is-the actual situation and what ought to be- the desirable situation. This gap has to be narrowed down mainly by the application of science and technology in their behavior

According to Supe (1987) the researchers neither have the time nor are they equipped for the job of persuading the villagers to adopt scientific methods and to ascertain from them the rural problems. Similarly it is difficult for all the farmers to visit the research stations and obtain first hand information. Thus there is need for an agency to interpret the findings of the research to the farmers and to carry the problems of the farmers to research of solution. This gap is filled by the extension agency.

02. SOCIOLOGY AND RURAL SOCIOLOGY

Sociology

Literally sociology means the study of the processes of companionship and may be defined as the study on the basis of social membership. No definition could entirely be satisfactory because of the diversity of perspective which is characteristic of the modern discipline. However, the definition for sociology according to various authors is given below for better and comprehensive understanding.

1. Sociology is the study of human beings in their group relations. As such it studies the interaction within and between groups of people - Chitamber.

2. Sociology in its broadest sense may be said to be the study of interactions arising from the association of living beings - Gillin and Gillin.

3. Sociology is the science which attempts the interpretive understanding of social man - Max Weber.

Sociology seeks to discover the principles of cohesion and order within the social structure, the ways in which it roots and grows within an environment, the moving equilibrium of changing structure and changing environment, the main trends of the incessant change, the forces which determine its directions as any time, the harmonies and conflicts, the adjustments and mal adjustments within the structure as they are revealed in the light of human desires and thus the practical application of means to ends in the creative activities of social man.

Rural Sociology

Rural Sociology is the science of rural society. The laws of the structure and development of rural society in general can aid us in discovering the special laws governing a particular society.

Rural sociology is the study of sociological life in rural setting to discover their conditions and tendencies and to formulate principles of progress.   - A.R. Desai

Rural Sociology involves the study of human relationships in rural situations.

Scope of Rural Sociology

Each village in India lived almost an independent self sufficient social and economic existence. That was the unique agrarian socio-economic structure of India. This self sufficiency was disrupted in British period by foreign rulers. In social life the joint family systems, the caste, the village panchayat were gradually replaced by British laws (e.g) revenue, judicial, executive etc., Introduction of modern communication and transport accelerated the above process. Every aspect of village life, social, economic, political and

cultural experienced a steady transformation. Thus changes made an agrarian economy into an acute crisis. The rural sociology studies the various problems concerning the rural society and rural life. The problems that fall within the scope of the study of the rural sociology are:

i. Rural social life: Rural Sociology as the name itself indicates is the scientific study of the rural social life. It studies the rural society of rural life in all its aspects. In fact this basic thing is the subject matter or scope of rural sociology.

ii. Rural social organizations: While studying the rural society, rural sociology makes a study of all the problems of various rural social organization such as Red Cross Society, Co-operative movement etc.

iii. Rural social institutions: No study of rural sociology shall be complete unless the rural social institutions like family, neighbourhood, marriage, caste, religion, economic and educational institutions are studied.

iv. Rural Social process: In rural society, different process like co-operation, competition etc, will go on. The study of rural society shall not be complete unless all these social processes are studied thoroughly and properly in a scientific manner.

v. Social control and social change in rural social setup: While studying the rural environment and complexities of the rural social set up, the factors of social control and social change have to be studied properly. They can be studied under rural sociology. The urban life influences the rural life. This in fact is very much responsible for social change. Factors of social control and social change form part of the scope of the study of rural sociology.

vi. Rural planning and reconstruction: The rural society needs reconstruction. It has to be done in a planned manner. Proper guidance is provided by the scientific study of the rural sociology is to provide guidance to the institutions that are engaged in the task of rural reconstructions and planning of rural society. Therefore the rural planning and reconstructions form a subject matter of the study of rural sociology.

vii. Religion and culture in rural society: In rural society religion plays an important role. Cultural difference in rural society is typical. Rural sociology studies all the aspects of religion and culture in the rural social setup.

viii. Rural problems and rural community: Rural problems have to be viewed not from an isolated angle but from a comprehensive point of view. Problems of the rural community are a part of the problems of the society as a whole and they have to be viewed in this very context.

ix. Difference between rural and urban society: The study of rural society shall not be complete unless the difference that exists between rural society and the urban society is studied in a proper and scientific manner.

Thus rural sociology studies the village society, so its scope is very wide.

Government agencies, scientists, welfare organizations etc. are now focusing their attention on the development of rural society. Thus, it becomes necessary for any development worker, scientist, administrator and planner to study the rural societies.

Further, countries which has agriculture as main occupation must have the well established rural sociology faculties. India has been described as a country of villages. In India, about 75 per cent of the population lives in about six million villages. After independence both the central and state governments are launching many rural development programmes and there is wider scope for rural sociology in India.

Importance of Rural Sociology

For India rural sociology is more important than any other country. India is basically a country of villages. After independence the process of reconstruction of the country was started and therefore, the importance of rural sociology was recognised. If India is to achieve progress, the villages have to be improved and education has to be spread in these villages. That is why in community development programme every attempt is being made to improve the villages of this country. This objective can be achieved only when the administrators and the planners have correct knowledge of the rural life and that knowledge can be provided only by rural sociology. That was the reason why it acquired greater importance in India after independence.

Importance of Rural Sociology in Extension Education

The inter relationship between rural sociology and extension as given below will indicate the importance of rural sociology in extension education.

S.No	Rural Sociology	Extension
1.	It is the scientific study of laws of the structure and development of rural society.	It is informal education for rural people with a view to develop rural society on desirable lines.
2.	It studies the attitude and behaviour of rural people	It seeks to modify or change the attitude and behaviour of village people.
3.	It studies the needs and interests of rural society	It helps rural people to discover their needs and problems, and builds educational programmes based on these needs and wants

4.	It analyses rural social relationship or groups or organizers and leaders in rural area.	It utilizes the organizers and leaders to achieve the objectives of rural development.
5.	It studies social situation and assembles social facts of rural society	It makes use of such social data as a basis for building up extension programmes for rural people.
6.	It investigates the social, cultural, political and religious problems of rural society	It also studies these problems with reference to their impact on extension work in village.

From the above inter-relationship between the rural sociology and extension education, one could understand that rural sociology will help the extension worker to make a correct diagnosis of the ills of the rural society and evolve a correct prescription or programme to overcome these ills. Therefore, rural sociology is important in extension education and in turn to any rural development worker.

03. INDIAN RURAL SOCIETY

Important characteristics of Indian Rural Society

Reddy (1985) has stated the following as the characteristic of Indian Rural Society.

1. The village is the unit of the rural society. Its people carry on the business of living together within a distinctive framework of caste and social custom. Caste is a dominant social institution permeating social and economic relations. Traditional caste occupation mostly prevails. Co-operative labour of different castes is required not only for agro-economic activities but also for socio-religious life. The large villages have within its population all the occupational castes, have a comparatively more integrated and self sufficient economic as well as socio-religious life than smaller villages.

2. The village as a social and cultural unit possesses a basically uniform organisation and structure of values all over India. Many problems are common to the entire Indian country side.

3. The ethnic, linguistic, religious and caste composition of a village largely determine its character and structure. Some villages of hamlets are inhabited almost exclusively by certain castes as in the case of Agraharams for Brahmins. Even in a village with mixed population the different castes usually live in different sections of the same village. Inter caste rivalries are present.

4. Women do not have full equality with men in several aspects of life.

5. Indian rural society is predominantly based on agriculture. Possession of land carries with it social and prestige value, besides being considered as an economic asset. In many villages, the land is mostly distributed between two or more castes, or among a few families, or between one big land owner and the rest of the community. Landless labourers and tenants constitute a considerable part of the population depending on agriculture.

6. Every village has its own organisational set up, authority and sanctions. It has its growing body, the panchayat, based on local tradition since long, but now constituted on a regular basis according to provisions of Panchayat Raj.

7. Social distance or isolation has a bearing on the nature of the organisation of a village and of its view on the world. Availability of or nearness to modern means of transport or communications also modifies the setting and fabric of a village.

8. Village settlements are generally governed by certain regional and local traditions. The layout of the village, construction of the house, the dress, the speech, and manners follow the set pattern of the cultural area. Each village possesses an individual of its own. Some have a reputation for generosity, hospitality and fair play, while others are notorious for their meanness and corruption. Some villages are kown for their co-operatives, while some are noted for their litigations and factions.

The important characteristics of the Indian villager was summarised by Reddy (1985) as hospitality, feminist traditionalism, fatalism, religiousness often combined with superstitious beliefs, leisure attitude to life, and low standard of living. Nevertheless most villagers are capable to change and will respond to the teachers whom they trust even though their past sad experiences make them conservation and hopelessness about the future. They are eager to learn how to help themselves and they represent paternalism.

Rural - urban Differences and Relationships

Environment affects human life to a greater extent. Human beings live in two different environments of rural and urban. Since, there is difference in social life in both environments it is of interest to know the differences. Further, extension workers are concerned themselves to rural environment, they must be in a position to differentiate the rural from urban environment.

While comparing and contrasting it has to be kept in mind that both the societies are the part of one human society. As a result of development one particular society assumes the name of rural society while the other becomes urban society. The two societies are basically the same. The difference that exists between the two is of theoretical and academic than the real.

S. No	Parameters or Criteria	Rural	Urban
1.	Occupation	Totality of cultivators and their families	Totality of people engaged principally in manufacturing, trade, commerce, profession and non-agricultural occupation.
2	Environment	Direct relationship with nature	Predominance of man-made environment. Greater isolation from nature.
3.	Size of community	Rurality and size of community are not correlated	Urbanity and size of community is positively correlated.

4.	Heterogeneity and Homogenity of population. (Similarity in socio-psychological and other characteristics of population like behaviour belief, language etc.)	More Homogeneity	More Heterogeneity
5.	Culture	1. Quite conservative and tradition bound	Free from conservation and tradition
		2. Guided by superstitions and age old customs. They do not accept importance of scientific functions.	Free from superstitions and customs. They are influenced by the scientific inventions which bring about changes in every day life.
6.	Social stratification (it determines the status and role of individuals, or differentiation or certain persons as superior to others)	1. Has the traditional system of stratifications.	The society is divided into different strata on the basis of economic, social, political, educational and other factors.
		2. Status is determined by birth	Status is not determined by birth. But on the economic, social, political, educational and other consideration.
		3. Stratification is more or less static. It does not change.	It changes with the changes in values. (e.g) A person who is rich now may become poor tomorrow. So the status shall change.
		4. Difference between the high and low is less.	More
7	Social mobility	1. Lack social mobility. People do not change their place, occupation, religion, political view etc.	Have a lot of social mobility
		2. Wards generally carries the occupation of parents and the social status also thus remains more or less same.	Occupation of wards is not necessary that of the parents.
		3. Occupation is determined by tradition & customs	Occupation differs according to skill
8.	Systems of interaction	1. Less contact per man	Numerous contacts
		2. Narrow area of interaction	Wide area of contact
		3. More of primary contacts	Predominance of secondary contacts
		4. Predominance of personal and relatively durable relations	Predominance of impersonal, casual and short lived relations

		5. Comparatively simple and sincere relations.	Greater complexity, superficiality and standardized formality of relations.
		6. Man is interacted as a human person	Man is interacted as a "number" and address.
9.	Social control	1. Informal because of size of community	More formal because of more laws
		2. It is the primary institutions like family & neighbourhood that control life and the society.	Primary institutions have social control. There are secondary institutions like economic and other institutions that control social life.
10	Social change	The process of social change takes place at a very slow rate because of little competition	Social change is fast because there is a good deal of competition
11.	Social tolerance and family domination	1. More tolerance because	Less tolerance because
		a. People do not face the new situation	People often face new situation
		b. There is cultural uniformity	Cultural variety seen
		c. Lack of variety (Neither different castes nor religions)	Full of varieties
		2. Family is the most dominant institution	2. Apart from family other institution like economy dominates
12.	Status of women	1. Inferior to men	On par with men
		2. Role confined to house	Free to take part in out-door activities
		3. Live with serious restrictions. They do not enjoy full freedom	On par with men enjoy a good deal of freedom
13.	Neighbourhood environment	1. Have important place	Not important
		2. Rural life is based on co-operation and mutual goodwill. That is why neighbourhood is important.	People have fairly convenient life. People belong to different communities, castes and places and so no institutions like neighbourhood is built.
		3. Neighbourhood generally consists of same caste and economic status. That is why a good deal of co-operation and fellow feeling is seen.	Belong to different economic status and castes so no co-operation is seen.
14.	Leaders	Based on personal characters	More impersonal leaders
15.	Solidarity	Stronger, informal	Less predominant

16.	Income	Less	More
17.	Sense of belongingness	More	Less

Sorokin and Zummerman have summed the above differences as "Rural community is similar to calm water in a pail and urban life is like the boiling water in a kettle".

Limitations in studying the differences

As it is discussed the above differences are theoretical and academic than real. It is so because there are many limitations in differentiating the both. Some of the limitations in differentiation are:

1. There are no demarcation where urban (city) ends and rural begins
2. The parameters or criteria said above are not quantitative.
3. Changing characters create problems. The solidarity, belongingness etc. are now reduced in rural areas.

Due to communication of new ideas and extension facilities to rural areas the gap between rural and urban is being narrowed down. However, the complete closure of this gap will not be possible in the near future.

04. SOCIAL GROUPS

Social groups

Group is a unit of two or more individuals who are in reciprocal communication and interaction with each other.

In the widest sense the word 'group' is used to designate a collection of items. The consideration of the following terms will give a clear concept of what we generally mean by a 'social group'.

i) *Category:* means collection of items that have atleast one common characteristic that distinguishes from other items which have other characteristics in common (eg.) individuals between 15 and 20 years of age, for instance, are referred to as an age group.

ii) *Aggregation:* is a collection of individuals in physical proximity of one another. (eg.) cinema audience, spectators of a football game. There may be some interaction between the individuals in an aggregation but it is generally of a temporary nature and lacks definite pattern of organisation. Interaction will be normally lacking.

iii) *Potential group:* is a group made up of number of people having some characteristics common but does not possess any recognizable structure. A potential group may become a real group, if it becomes organised and comes to have union or organisation. Students form a potential group as long as they have no union but once they become organised, they form a social group.

iv) *Social group:* is a collection of two or more individuals in which there are psychological interactions and reciprocal roles based upon durable contacts, shared norms and interests, distinctive patterns of collective behaviour and structural organisation of leadership and fol1owership.

Social group definition according to different authors

Bogardus: It is a number of units anything in close proximity to one another.

Mac Iver: Any collection of human beings who are brought into social relationships with one another.

Sheriff and Sheriff: A group is a social unit which consists of number of individuals who stand in, more or less, definite status and role relationships to one another and which possess a set of values or norms of its own, regulating the behaviour of individual member's atleast in matters of consequence to the group.

Williams: A social group is a given aggregate of people, playing inter-related roles and recognised by themselves or others as a unit of interaction.

Meaning of Group

A social group is

- a collection of individuals
- two or more
- interacting with each other
- who have common set of objectives participate
- in similar activities

Characteristics of Social Group

1. *Relationship:* Members of group are inter-related to each other. Reciprocal relations form an essential feature of a group.

2. *Sense of Unity:* The members of the group are united by a sense of unity and a feeling of a sympathy.

3. *We-feeling:* The members of a group help each other and defend their interests collectively.

4. *Common interest:* The interests and ideas of the group are common. It is for the realisation of common interests that they meet together.

5. *Similar Behaviour:* The members of a group behave in a similar way for the pursuit of common interest.

6. *Group Norms:* Every group has its own rules or norms which the members are supposed to follow.

One must remember that social group is dynamic and not static. It changes its form and expands its activities from time to time. Sometimes the changes may be swift and sudden, while at other times it may occur so gradually that its members are unaware of it.

Occasions for group Formation

i. Physiological kinship
ii. Marriage
iii. Religion
iv. Common language
v. Neighbourliness

    vi.   Occupational or economic interests

   vii.   Attainment of some occasions like school, profession, club etc.

  viii.   Common dangers

    ix.   Mutual aid and so on.

Classification of Group

      Social groups have been classified in various ways by different authors.

1. According to Dwight Samderson

      He suggested a three fold classification of social group by structure as involuntary, voluntary and delegate groups.

a) *Involuntary group* is based on kinship such as family. A man has no choice to what family he will belong.

b) *Voluntary group* is one which a man joins of his own volition. He agrees to be a   member of it and is free to withdraw at any time from its membership.

c) *Delegate group* is one which a man joins as' a representative of a number of people either elected by them or nominated by some power. Parliament is a delegate group.

2. According to Tonnies

      He classified the groups into communities and associations. Both these groups are already defined and discussed.

3. According to Cooley

      Cooley classified the groups on the basis of kind of contact into primary and secondary groups. In a primary group there is face to face and intimate relationship such as in the family. In the secondary group such as a political party the relationships are indirect, secondary or impersonal. These groups are defined and discussed separately.

4. According to F.H.Giddings

      F.H.Giddings classifies groups into genetic and congregate groups.

      Genetic group is a family in which a man is born involuntarily. The congregate group is the voluntary group into which one moves or joins voluntarily.

      The social group according to him may also disjunctive or overlapping. The disjunctive group is one which does not allow a person to be a member of other groups at the same time. (e.g) College or nation which do not allow their members to be the members of other colleges or nations at the same time.

      An overlapping group is one whose members also belong to other groups of the same type such as Indian Political Science Association.

5. According to George Hasen

He classified the groups on the basis of their relationships to other groups into unsocial, pseudo-social, anti-social and pro-social.

Unsocial group is one which largely lives to itself and for itself and does not participate in the larger society of which it is a part. It does not mix up with other groups and remains aloof from them.

Pseudo-social group participates in the larger social group but mainly for its gain and not for the greater good.

Anti-social group is one that acts against the interest of society. A group of students that destroys public property is anti-social group. Similarly a political party that plan to over throw a popular government is anti-social.

Pro-social group is the reverse of anti-social. It works for the larger interests of the society. It is engaged in constructive tasks and concerned with increasing the welfare of all the people.

6. According to Sorokin

Sorokin divided the social groups into horizontal and vertical groups.

Horizontal groups are large, inclusive of groups such as nations, religions, organisation political parties etc.

Vertical groups are small divisions such as economic classes. Since the vertical group is a part of the horizontal group (the larger group) an individual is member of both.

7. According to Charles A.Ellwood

He distinguished among

 i. Involuntary and voluntary groups

 ii. Institutional and non-institutional groups

 iii. Temporary and permanent groups

8. According to Leopold

He classified groups into

 i. Crowd

 ii. Groups and

 iii. Abstract collectives

9. According to Park and Burgers

They distinguished the groups as territorial and non-territorial groups.

10. Lowis Gillin and Philip Gillin *(Gillin* and *Gillin)*

They classified the groups on the basis of

1. Blood relationship

ii.   Bodily characteristics

iii.   Physical proximity and

iv.   Culturally derived interests

11. According to Summer

He classified the group as ingroup and outgroup.

Ingroup is the group with which the individual identifies himself, his family, tribe, sex, college, occupation, religion, etc. by virtue of his awareness of likeness.

It has inclusion of some persons and exclusion of other persons. It has the collective pronoun 'we'. It has some sympathy and a sense of attachment to other members of the group.

Outgroup is defined in contrast between 'they' and 'we', like we are democrats and they are communists. We are Hindus and they are Muslims. We are Brahmins and they are Nadars.

Such attitudes that "these are my people" and that "those are not my people", produce a sense of attachment to other members in group, while a sense of indifferences and even antagonism to the members of outgroup.

Primary and Secondary group

They are distinguished from each other with their type of social contact and degree of formal organization. In the primary group there is face-to-face association, contacts are personal, individuals live close to one another socially and do not need the formal framework of a constitution to achieve their purpose. Members of a family, a neighbourhood, friends circle are good examples of primary group. In this type members are loyal to one another because of personal regards ad the sharing of many interests. The secondary group is larger, more formal, specialized and indirect in its contact.

Characteristics of Primary Group

i.	Physical proximity	Close proximity because they are close to each other
ii.	Small size	Intimate and personal
iii.	Stability	To have intimate relationship the primary group should be stable to some extent
iv.	Similarity of back ground	Each member come from equally experienced, intelligent, etc.
v.	Self interest	They have limited self interest
vi.	Intensity of shared interests	In primary group common interests are shared by every member
vii.	Association	Close and there is face to face contact

The face to face contact does not mean that it exerts a compelling influence over its members.

Difference between primary and secondary groups

S.No	Characteristic	Primary group	Secondary group
1	Size	Small	Wide spread
2	Kind of co-operation	Co-operation with other members is direct. Members sit together, discuss together and decide together.	Co-operation is indirect and less. Members co-operate to achieve common goals and objectives.
3	Type of structure	Informal structure. There is spontaneous adjustment in working of the group. No formal or detailed rules. The structure is simple.	Formal structure. Regulated by formal authority. Secondary group is therefore, carefully worked out.
4	Relationship	Direct, intimate and personal. Face to face.	Indirect, less intimate and impersonal. Need to have face to face contact.

05. CULTURE

Culture

Culture has been defined in number of ways. Some of these definitions are given below

1) To **Sorokin**, culture stands for the moral, spiritual and intellectual attainments of man.

2) **David Bidney** defines the culture as the self cultivation of the natural geographical environment. He says that culture is a product of agrofacts (products of cultivation), artifacts (products of industry), sociofacts (social organisation), and manifacts (language, religion, art, etc.)

3) According to **Mac Iver** culture is the expression of our nature in our modes of living and our thinking, intercourse in our literature, in religion, in recreation and enjoyment.

In Sociology, the word culture is used to denote acquired behaviours, which are shared by and transmitted among the members of the society. The essential point in culture is that it is acquired by man as a member of society and persists though tradition.

Characteristics of Culture

i) Culture is an acquired quality

Culture is not innate, traits learned through socialisation habits and thoughts arc called as culture. Culture is learned.

ii) Culture is social and not individual heritage of man

It is inclusive of the expectations of the members of the groups. It is a social product.

iii) Culture is idealistic

Culture embodies the ideas and norms of the group. It is a sum-total of the ideal patterns and norms of behaviour of a group.

iv) Culture is the total social heritage

Culture is linked with past. The past endures because it lives in culture. It is passed from one generation to another through tradition and customs.

v) Culture fulfils some needs

Culture fulfils those ethical and social needs of the groups which are ends in themselves.

vi) Culture is an integrated system

Culture possesses order and system. Its various parts are integrated with each other and any new element which is introduced is also integrated.

vii) Language is the chief vehicle of culture

Man lives not only in the present but also in the past and future. He is enabled to do because he possesses language which transmits to him what was learnt in the past and enables him to transmit the accumulated wisdom.

Ethnocentrism

It is the tendency of a society to consider its own culture as best, and others as inferiors. It is a feeling whereby the natives come to despire foreigners and feel superior to them.

Functions of culture

Culture is important for individual and group. So one has to consider the functions of culture under two heads.

  a) for individual and

  b) for groups.

Importance to the individual

i.   Culture makes man a human being, regulates his conduct and prepares him for group life. It provides him a complete design of living. It teaches him what type of food he should take and in what manner; how he should behave with and influence the people and how he should co-operate or compete with others. In short, the qualities required to live in a social life are acquired by man from his culture.

ii.   Culture provides solutions for complicated situations. Culture provides man with a set of behaviour even for complicated situations. Culture thoroughly influences him so that he does not require any external force to keep himself in conformity with social requirements. His actions become automatic (e.g.) forming a queue where there is a rush.

iii.   Culture provides traditional integrations to certain situation (e.g.) if a cat crosses his way he postpones the journey. These traditional interpretations differ from culture to culture.

For the group

i) Culture keeps social relationships intact

Culture is important not only for man but also for the group. Had there been no culture there would have been no group life. By regulating the behaviour of people and satisfying their primary drives pertaining to hunger, shelter, and sex it has been able to maintain group life. Infact life would have been poor, nasty, brutish and short if there had been no cultural regulations. It is culture which keeps all social relations intact.

ii) Culture broadens the vision of the individual

Culture has given a new vision to the individual by providing him a set of rules for the cooperation of the individuals. It provides him the concepts of family, state, nation and class and makes possible the coordination and division of labour.

iii) Culture creates new needs

Culture creates new needs and new drives, for example, thirst for knowledge and arranges for their satisfaction. It satisfies the aesthetic, moral and religious interests of the members. of the group. In this Way group owe much to culture.

Cultural Diffusion

Cultural diffusion is the processes by which the cultural traits invented or discovered in one society are spread directly or indirectly to other societies.

Exact origin of a specific cultural trait is difficult to trace, however, the diffusion of a trait can fairly be traced. In history certain societies have served as centres from which cultural traits have spread to other societies. Egypt was for many centuries a cultural centre. Subsequently Rome was a great cultural center from where Roman law spread in most countries of Europe. In Asia the Chinese Kingdom was considered from early time as the dominant culture center. Around fourteen century Western Europe became the dominant culture center. Now, the United States is exporting its culture to other countries.

Following are the influential factors to the process of diffusion.

a)   Relation and communication

b)   Need and desire for new traits

c)   Competition with old traits

d)   The respect and recognition of those who bring new traits.

Cultural diffusion may be incidental or by direction. Wherever a person migrates from one culture area to another he carried culture patterns with him. Cultural diffusion by direction is normally done either by sending missionaries or by colonization.

Cultural lag

Cultural lag means that some parts of people's culture do not change as do other traits. It means that one or more phases of culture have moves ahead and that all other phases are lagging behind.

Marginal man

Difference in culture produces a marginal man. A person who is living in two cultures is likely to occupy not the center of either but by the margins of both. He is the man who belongs to two or more cultures but is not fully accepted in any. A migrant, who has moved into a decidedly different culture area from the one in which he grew to manhood, is likely to be marginal man.

Customs

Customs are socially prescribed forms of behaviour transmitted by tradition. Customs regulates the whole of man's action, his bathing, washing, cutting his hair, eating, drinking etc. customs are well established and difficult to change.

Classification of Customs

i. Folkways and usage
ii. Mores and Taboos
iii. Conventions and
iv. Rituals

i) Folkways and usage

They are approved forms of behaviour for specific situations. This is the expected way in which persons are to behave. It arises without prior intention (e.g.) petty acts. Observations of folk-ways is not a must. So violation of folkways are not punished severely.

ii) Conventions

Conventions are customs regulating more significant social behaviour.

- wearing cloths in public
- polite to others
- Eating using knife, fork and spoon instead of hand/fingers.

People care for the adoption. Conventions are less violated than folkways.

ii) Mores and Taboos

The difference between folkways and mores is the degree to which they are enforced.

Folkways may be broken without punishments but mores broken will be punished. Mores are defined as those of folkways which are essential to ethical or moral values of people.

Mores are positive action enforcing what ought to be done (e.g.) saluting the flag, standing during the playing of national anthem.

Taboos are negative action envisaging what ought not to be done (e.g.) not smoking in front of elders.

iv) Rituals

It is the pattern of behaviour or ceremonies, which has become the customary way of dealing with certain situations (e.g.) performing the marriage ceremonies.

Characteristics of culture

i. It provides a series of patterns whereby the biological demands of the group members can be met, (e.g.) for subsistence, shelter and reproduction.

ii. It provides a set of rules to ensure the cooperation of the individual of a group in adjusting to the environmental situations.

iii. It provides channels of interaction for the individuals within the group.

iv. Culture provides methods of adjustment of the group to its external and internal needs.

v. For individuals in a society culture provides

a) ready-made adjustments to a number of situations and (b) a series of familiar stimuli to the individual, to which he has only to respond in a familiar way.

Role of culture in agriculture

Learning the customs, folkways, mores, taboos, etc. of a group of people will help one to predict what they will do in a given situation. Without such predictability expectations of what the other would do in a given situation the result would be a chaos in society.

Culture is not a static but dynamic, because of internal and external forces. Development programme are such external force which changes the culture of the society. Hence it is important for an extension worker to understand this fact. The scientific understanding of the culture of the people among whom extension worker operates is basic to the effective performance of his function (e.g.) if caste structure is there in the village, study the caste system and function.

Functions of culture

i. Culture provides a series of patterns whereby the biological demands of the group members can be met, example for sustenance, shelter and reproduction.

ii. Culture provides a set of rules to ensure the co-operation of the individuals of a group in adjusting to the environmental situation. The group is thus able to act in certain situation as a unit.

iii. Culture provides channels of interaction for the individuals within the group.

iv. Culture provides methods of adjustment of the group to its external and internal needs. It provides a pattern for the development of the individual.

v. For the individual in a society, culture provides (a) ready made adjustments to a number of situations and (b) a series of familiar stimuli to the individual to which he has only to respond in a familiar way.

All the functions are controlled through norms or rules made in society.

06. SOCIAL VALUES AND ATTITUDES

Social Value

The function of extension is to bring about desirable changes in the behaviour of people. The overt behaviour or what we call as action is based on attitude. Unlike action, attitude cannot be seen. They can only be inferred by way of tendency to act or react positively or negatively to some stimuli. These tendencies or attitudes in turn are based upon individual's values.

Social values are ideas which help an individual to discriminate whether a particular object or behaviour is good or bad, desirable or undesirable. There are at times rules which govern the action which is known as "Norms". People are expected to behave in accordance with the values held by the individual and in the expected behaviour which is known as "normative behaviour". S.C.Dood. defined the value as "desiderata" (i.e.) anything desired or chosen by someone, sometime. In broad sense value may be considered as attitude-related attribute that are projected upon people, objects and situations. Since values, sometimes gives orientation or striving towards a given goal, it can be viewed as motives.

Socio-psychological determinants of values

People will be eager to change and many times they accept changes, when changes give prestige to them and/or increase their socio-economic changes. Though change is common every individual will not accept changes. Only some individuals accept the changes. An analysis of factors that influences the changes were studied by Reddy (1987). They are caste of the individual, age, possession of land and type of tenure, wealth and economic position, hard work and physical stamina, personal characteristics like truthfulness, honesty, reliability etc. These factors have obvious implications in the introduction of improved practices.

Type of Values

Value may be classified in different ways. **Fraenkel** (1976) classified as:

Moral Value	deciding particular alternative as better than other because of its just or more humane
Real value	deciding based on real worth in terms of legal, aesthetic, etc.
Market value	based on how much can be paid - value in terms of price

Personal value	based on ones likes and preferences over things of similar nature
Instrumental Value	based on some standards that help us to achieve or acquire other values

Spranger classified as

Theoretical value	expressed in the urge for discovery of truth
Economic value	based on the criterian of usefulness
Aesthetic value	based around form and harmony
Social value	referring to interest of people on others
Political value	central round power
Religious value	meaning thereby a mystic sense of utility

Major values prevailing

1. Importance of described status

Status of individual in a group is decided by the group to which he belongs. There is an established order of hierarchy of casts in Indian society.

2. Recognition of inequality

Still exists on caste basis

3. Patrilineal tendency

Eldest male member of the family has supreme power and tends to act automatically

4. Status of women

Though there is tendency to give greater respect they are still inferior to men.

5. Charity

There is religious significance and approval for giving of aims. A person with a charitable disposition is respected.

6. Tendency of non-violence

Killing of animals except for the purpose of food is considered to be immoral. It sometimes brings conflict.

7. Respect to old age and elders

They are generally given respect and recognition.

8. Religious attitude

People in rural areas are religious

Desired new values

1. Equal status to all.
2. Modification in marriage norms - (education on intercaste marriage)
3. Charitable disposition
   a. Donation irrespective of the eligibility of vagarants to be avoided and channelised to the needy and welfare institutions.
4. Attitude to non-violence
5. Non violence is to be rationalized. Animal spoiling food crops should be prohibited.
6. Respect for the elders and old and due consideration for the younger generation.
7. Religion and technology

Along with faith in religion, people have to develop faith in science and technology.

Some of the values found out in farmers are:

1. Profitability and productivity preference were the highest ranked values for the adoption of improved practices.
2. Scienticism was the lowest ranked value for farming. Various studies suggested that Indian farmers are profit-minded. They aim for higher profit and greater productivity.

Role of Values of Agricultural Extension

We have already seen that culture of the people is changing and it is dynamic. The development workers or extension workers are the major strongest forces to bring changes in the culture of rural India. In fact community development programmes are the promotion of cultural changes among rural people towards desired goals. Accepted on that irrespective of the involvement of extension workers the changes happen. But the desired changes in the direction deemed desirable by the government in the rural society only when extension workers are involved the change agents.

Scientific understanding of culture of people among whom extension work operate helps the effective functioning by these workers. This is particularly significant in countries like India. For instance, piggery is not introduced in Muslim areas, poultry farming in Brahmin areas, and the like. Thus, the study on caste structure would reveal certain types of improvements of change.

Religious festivals and other local functions form important part of village life. Extension workers can look upon these festivals and meals as potentially useful for technology transfer through exhibition, demonstration, etc.

It is generalised that greater success may be anticipated when a new improved practice is introduced in familiar terms something that is already present in the culture.

Change is more likely to occur where there is lack of adjustment. For example when village fields are wiped out by flood or fire, that would be the right opportunity to introduce a technology. Several model villages and model settlements have been established with little resistance on the part of people under such conditions. The point is not such calamities are desirable, but when they happen the full advantage can be taken up for development.

Some of the recent high yielding varieties of wheat and rice could not make head way due to the colour of the wheat which is not liked by the buyers, poor cooking quality etc. When the extension workers bring this to the researcher's knowledge the reseacher would evolve new varieties which do not have these drawbacks. This is a good example of how the value factor can influence both the extension worker and researcher.

Attitude

Attitudes involve some knowledge of a situation. However, the essential aspect of the attitude is found in the fact that some characteristic feeling or emotion is experienced and, as we would accordingly expect, some definite tendency to action is associated. Subjectively, then, the important factor is the feeling or emotion. Objectively it is the response, or at least the tendency to respond. Attitudes are important determinants of behaviour. If we are to change them we must change the emotional components. All part has defined attitude as a mental and neutral state of readiness organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects with which it is related.

A farmer may vote for a particular political party because he has been brought up to believe that it is "right" party. In the course of experience he may learn some thing about the policies of that party. In that case his attitude will probably change. As a result, he may be expected to vote in a different way. Knowledge, attitude and behaviour are then very closely linked.

Measuring attitudes

Attitude scales: It is meant for scientific studies. Scales have been developed for measuring a great number of attitudes. Each scale consists of a group of statements related to a particular attitude. Some scales ask the person to respond by indicating whether he agrees or disagrees with each statement. Other scales ask the person to specify the degree of his agreement with a statement. The degree of agreement will be given predetermined values.

Public opinion poll: A large number of people are asked only a question or two because they don't have much time to respond too many items.

There are two major problems in public opinion poll (i) wording of questions and (ii) sampling.

For the poll be accurate, the sample must be representative. For this we have to use stratified sampling. In stratified sampling, the polling agencies set quotas for certain categories of people based on Census data. The most common categories are age, sex, socio-economic status, and geographical region, all of which are known to influence opinions. By seeing to it that the quotas in the sample are in proportion to the categories in the general population, the sample is made more representative.

Attitude change

Well established attitudes tend to be resistant to change, but others may be more amenable to change. Attitudes can be changed by a variety of ways. Some of the ways of attitude change are as follows.

1. By obtaining new information from other people and mass media, resulting in changes in cognitive component of a person's attitudes.
2. Attitudes may change through direct experience.
3. Attitudes may change through legislation.
4. Since person's attitudes are anchored in his membership group and reference groups, one way to change the attitude is to modify one or the other.
5. Attitude change differs with reference to the situation also.

Factors influencing the development of attitudes

I. Maturation

The young child has only a very limited capacity for understanding the world about him and he is consequently incapable of forming attitudes about remote, or complex, or abstract things or problems.

At about a mental age of twelve years the child begins to understand abstract terms such as pity and justice, and his capacity for both inductive and deductive reasoning shows a marked and continuous increase during adolescence. As a result of this growth in capacity, he becomes able to understand and react to more abstract and more generalized propositions, ideas and ideals.

At the age of four or five years, three characteristics especially deserve mention. These are curiosity, centra-suggestibility, and independence. The child at this age is likely to express his curiosity by asking an endless series of questions.

Adolescence is marked especially by the maturation of sex emotions and by the development of altruism and co-operativeness. These in large measure furnish the basis for the formation of attitudes that differentiate adults from children. Boys at the age of twelve years may have a distant interest in girls and they may even have crushes on particular girls, but their interest is quite different from what it will be some years later.

2. Physical factors

Clinical psychologists have generally recognized that physical health and vitality are important factors in determining adjustment, and frequently it has been found that malnutrition or disease or accidents have interfered so seriously with normal development that serious behaviour disturbances have followed.

3. Home influences

It is generally accepted that attitudes are determined largely by social environmental and that home influences are especially important.

4. The Social Environment

The home environment is of primary importance in the formation of early attitudes, but friends, associates and the general social environment come to have an increasing influence as the child grows older has wider social contacts.

5. Government

The form of the government seems to be an important factor in determining attitudes both towards government itself and towards other things.

6. Movie pictures

Attendance at movie pictures constitutes another important possible influence in determination of attitudes. Thurston concluded that films definitely change social attitudes, although only about 10 per cent of the attitudes studied seemed to be affected by movie attendance.

7. The Teacher

Brown asked 300 graduate and undergraduate students in educational sociology to evaluate the various factors in their school experience that had been influential in the formation of personality and character traits. According to their judgement, the personalities of their teachers had been the most important single factor, 65.3 per cent thought this influence had been good, but 33.3 per cent thought it had been unfavourable. Only about 10 per cent did not consider, the teacher's influence is important.

8. The Curriculum

Thorndike asked 155 teachers to rate eleven subjects and activities on the basis of

what they considered the value of these to be or the training of character. Teaching has the highest rank, but athletic sports come next. English literature and history have the best ranks for the regular school subjects; mathematics and foreign languages are ranked much lower. This indicates that, in the opinion of this group of teachers, literature and the social sciences have more influence than other subjects on the determination of attitudes. This seems a reasonable view and it suggests that the units of work and the readings in these areas should be selected with particular reference to their probable influence on the attitudes formed by the students.

9. Teacing Methods

One of the categories in Brown's study was *"manner of presentation"* of subject matter. This was judged to have a favourable effect by 8.0 per cent of the students and an unfavourable effect by 17.7 per cent.

Development of Attitude

Attitudes are not mere accidents of individual experience. They result from day- to-day living in home, in school, and in the community. Whatever attitude children develop can be traced, in part atleast, to the effect upon them, of teacher precept and example. The challenge to teacher is that of helping the learner retain his identity, develop his individuality and absorb a background of democratic culture. Theoretically all education is aimed at helping learners develop to the full extent of their ability and those attitudes that fit them for living constructively in a democratic society.

Attitudes are formed without direction and also by direction as the result of careful planning by a person or persons who desire to encourage the development of certain attitudes in others. One function of school is that of stimulating young people towards acquisition of attitudes that are individually and socially desirable. It is through initiation, emotional experience and deliberate efforts on the part of the individual himself, teacher, and other and new attitudes arise.

Child is a great initiator and builds its most of attitudes in that way. Adolescent develops attitude by his enlarging adjustment problems with expanding groups. The environment to which he is exposed influences the attitude either desirable or undesirably. Radio, television, film and printed matter contribute to the attitude development. Thus, there are so many factors that influence the adults to develop attitudes.

07. SOCIAL INSTITUTIONS

Social Institutions

Social institutions have been created by man from social relationships in society to meet such basic needs as stability, law and order and clearly defined roles of authority and decision making.

Every organisation is dependent upon certain recognised and established set of rules, traditions and usages. These usages and rules may be given the name of institutions. These are the forms of procedure which are recognised and accepted by society and govern the relations between individuals and groups.

Definition

Wood ward and Maxwell: An institution is a set of folkways and mores into a unit which serves a number of social functions.

Horton: An institution is an organized system of social relationships which embodies certain common values and procedures and meets certain basic needs of society.

Landis: Social institutions are formal cultural structures devised to meet basic social needs.

Characteristics

   i. Institutions are the means of controlling individuals.
   ii. Institutions depend upon the collective activities of men.
   iii. The institution has some definite procedures which are formed on the basis of customs and dogmas.
   iv. Institution is more stable than other means of social control.
   v. Every institution has some rules which must be compulsorily obeyed by the individual.

Five major institutions in rural sociology are political, educational, economic, family and religion.

1. **Political**: Government as political institution, administers the regulatory functions of Law and order, and maintains security in society. Form of government and its method of working depends on the accepted patterns of behaviour in a society. Development work is now-a-days a major responsibility of the government. For effective implementation of programmes, government may decentralise its functioning by creating local self-government like panchayats at different level.

2. **Education:** is the process of socialisation, which begins informally at home and then

formally in educational institutions. Education as an institution helps develop knowledge, skill, attitude and understanding of the people and strive to make them competent members of the society. Education widens the mental horizon of the people and make them receptive to new ideas. .

3. **Economic:** Economy provides basic physical sustenance of the society by meeting the needs for food, shelter, clothing, and other necessary supply and services. Economic institutions include agriculture, industry, marketing, credit and banking system, co-operatives etc.

4. **Family:** is the most basic social institution in a society, and is a system of organized relationship involving workable and dependable ways of meeting basic social needs.

5. **Religion:** -is belief in supernatural. Religion constitutes a set of beliefs regarding the ultimate power in the universe, the ideal and proper pattern of behaviour, and ceremonial ways to expressing these beliefs. Religion also provides a foundation for the mores of the society. Taboos in various cultures have religious sanction. Religion provides a means by which individuals can face crises and ups and downs in life with strength and fortitude.

Function

1. Sex regulation.

2. Reproduction and perpetuation of the family and human race.

3. Socialisation

4. Provision of economic maintenance and livelihood in many cultures.

5. Provision of love, affection and security to the individual.

6. Provision of class status to the individual of the family into which he has been born.

Definition of Family

Family is defined by Burgess and Locke as a group of persons united by the ties of marriage, blood or adoption; constituting a single household, interacting and inter communicating with each other in their respective social roles of husband and wife, mother and father, son and daughter, brother and sister, creating a common culture.

Eliott and Merrill defined the family as "the biological social unit composed of husband, wife and children".

Characteristics of family

Family is the most universal group. Family is classified based on structure (patriarchal or matriarchal) and residence.

1. Patriarchal family

It is the family where male is the head of family inclusive of powers. He is the owner and administrator of the family property and right. To him all persons living in the family are subordinated.

2. Matriarchal family

The authority vests in the woman head of the family. The male is subordinated to her. She is the owner of property and rules over family. This type of family is said to prevail among the primitive people, who led a wandering or hunting life.

3. Based on residence the family is classified as

a) *Matrilocal family:* In this type of family husband goes to live in the house of his wife.

b) *Patrilocal family:* Wife goes and lives in the house of her husband.

4. Based on the marriage the family is classified as:

   i.   *Monogamous family:* In which man marries one woman only at one time.

   ii.   *Polygamous family:* In this kind of family one man marries many women at one time.

   iii.   *Polyandrous family:* In. this kind of family one man marries many women and lives with all of them or each of them alternatively.

5. The family is also classified based on ancestry as follows:

   i.   *Matrilineal family:* Here woman is believed to be the ancestor of the family.

   ii.   *Patrilineal family:* Here the ancestry continues through the father.

6. Religion: is belief in super natural. Religion constitutes a set of beliefs regarding the ultimate power in the universe, the ideal and proper pattern of behaviour and ceremonial ways of expressing these beliefs. Religion also provides a foundation for the mores of the society. Taboos in various cultures have religious sanction. Religion provides a means by which individuals can face crises and ups and downs in life with strength and fortitude.

08. SOCIAL ORGANISATIONS

Social Organisations

Anderson defined organisations as those classes of human relationship structures wherein people purposefully associate in systematically arranged units to promote and achieve some common purposes or interests that are not specifically expressed in the institution.

Each member has a formal status and role. An organisation differs from an institution by its focus on a narrowly limited purpose; it is a group of people organised to pursue a specific objective. An institution on the other hand pursues broader and more general purposes and is basically a set of socially sanctioned procedures involving patterned behaviour, norms and rules. Orgartisations may operate within institutions, though supporting it and, helping to achieve its objective.

The form and structure of an organisation develops as specialised activity, rules and regulations for operating, time and place of meetings, are formulated and the, organisation operates as a clearly defined entity having a specific objective with officers and membership.

Essential Characteristics of organisations

1. **Clearly defined Limits**: in keeping with a specific purpose and interest, the limits within which an organisation operates are clearly defined goals, and activity is polarised around these goals. Organisations may seek new goals to justify their existence and continuation over a long period of time. For instance, the Red Cross society, born during World War I modified its function and objectives to meet peace time needs. Organisations may vary widely in purpose, being created to serve very different interests, such as welfare, music, poetry, religion etc. The purpose is normally specified in the 'organisation's constitutions and by laws, which are often legally registered in accordance with prevailing laws and practices.

2. **Formal membership, status and Role:** There are several aspects of membership in an organisation, membership is voluntary and motivated by specialised individual interest. Organisations are almost completely government sponsored or sanctioned. Direction of these organisations is usually by government officials and membership is compulsory. Organisations that are not under 'government control' are tolerated only if the government feels that their operation is in line with the government interests, under such circumstances organisations can rarely be formed as spontaneous expressions of the interests of people in society.

Membership may involve restrictive qualifications and certain minimum requirements. These restrictions may be on the basis of sex, talents, interest occupation etc.

3. **Self contained Administrative structure:** Each organisation has its own administrative structure with roles and functions clearly defined and prescribed.

4. **Operative principles, procedures and goals:** All organisations have a carefully stated constitution and by-laws, some times required by law, embodying objectives, rules, regulations and operational procedures.

5. **Provision for control, authority and decision making:** The rules and regulations of an organisation define authority, procedure for decision making and measures for maintaining conduct and behaviour of members.

6. **An outlet for Individual interest:** An organization enables a group of persons sharing a common interest in society to associate with one another, working together towards realization of their interest.

7. **A Channel for purposeful action:** In fulfilling its goal, an organization may influence social decisions and effect or stimulate social change.

Classification of organization

1. On the basis of political structure within which they are created.
2. On the basis of motives of participation.
3. On the basis of organizational operation.

On the basis of admission to membership.

09. SOCIAL CHANGE

Change is the law of nature. What is today shall be different from what it would be tomorrow. Modern world is a world of rapid change. People too much change and acquire the facility of change. The social structure is also subject to change. Over a period of fifty years the government is changed. Family, religion etc. are also changed. Our understanding of the society will not be complete unless we take into consideration the changeable nature of society, however, differences emerge and discover the direction of change. So let us see what are social change and its characters.

Definition

The word 'change' denotes a difference in anything observed over some period of time. Following are some of the definitions.

1. **Jones:** Social change is a term used to describe variations in or modifications of any aspect of social process, social patterns, social interaction or social organization.

2. **Gillin and Gillin**: Social changes are variations from the accepted modes of life; whether due to alteration in geographical conditions, in cultural equipment, composition on the population or ideologies and whether brought about by diffusion or inventions within the group.

3. **Davis & Mac Iver**: Social change is change in the relationships.

Theories of Social change

While studying the theories of social change one should know the theories regarding (i) the direction of social change and (ii) the causes of social change.

The direction of social change

Early sociologists viewed the culture of primitive people as completely static. Anthropologists now agree that primitive cultures have undergone changes although as such a slow pace as to give the impression of being stationary. In recent years the social change has proceeded at a very rapid rate. Since World War I numerous countries have passed through profound changes not only in their political institutions but in their class structure, their economic system, their modes of living, etc. Various theories have been advanced to explain the direction of social change. Each of them is described.

i) **Theory of Deterioration:** Some thinkers have identified social change with deterioration. According to them, man originally lived in a perfect state of happiness in a golden age. Subsequently, however, deterioration began to take place with the result man has reached the degeneration. That is why the modern age is called as the age of 'Kaliyug', wherein man is

false, dishonest, selfish and consequently unhappy. This concept is understandable since we observe deterioration in every walk of life today.

ii) **Cyclic Theory:** Some Sociologists believe that society has a predetermined life cycle and has birth, growth, maturity and decline. Modern society is in the last stage. It is in its old age. Then the history repeats itself. Society after passing all stages returns to the original stage where the cycle again begins. According to this present "Kaliyung" will be over and after that "satyug" will again start which is the best again in which man will be honest, truthful and perfectly happy.

iii) **Sage Theory:** Some thinkers subscribe to the stage theory of social change. According to them, society gradually moves to an even higher state of civilization and that it advances in a linear fashion and in the direction of improvement. **August Comte** postulated three stages of social change: the theological, the metaphysical and the positive. Man has passed the first two stages. In the first stage man believed the supernatural powers controlled and designed the world. He advanced gradually from belief to metaphysical stage where man tried to explain by resorting to abstractions. On the third stages of positive stage man considers searching for ultimate causes and seeks the explanatory facts that can be empirically observed.

The causes of Social Change

It has briefed about the direction in which social change has taken place. But none of the above theories strikes the central question of causation of change. Among the causal theories change the deterministic theory is the most popular.

Deterministic theory

According to this theory there are certain forces, social or natural or both, which brings about social change. It is not reason or intellect, but the presence of certain forces and circumstances, which determines the course of social change. Summer and Keller stated that social change is automatically determined by economic factors. Conscious effort has very little effect to change, social change is essentially unconscious process. Many sociologists held the religion as the chief initiator of social change.

The theory of religious determination has been criticized by Sorokin in his Contemporary Sociological Theories. According to him change is caused by the interaction of various parts of a culture and none of them is considered as primary. It means that change is pluralistic rather than monistic in origin.

Factors of Social Change

Social Change has occurred in all societies and in all periods of time. But the rate of change differs from society. In one society the rate is rapid while in another it is slow. There

are various factors which determine the rate and direction of social change. Some of the factors are:

I. Biological Factors

By biological factors we mean the factors that determine the number, composition, the selection and the hereditary quality of the successive generations. Every human element in society is always changing. If we compare ourselves with our parents, we will know that we are different from them in our make-up, ideas and in most other things. No new generations are an exact replica of the old. Each new generation is a new beginning.

The changes in population in both number and composition have effect on society. For example, in a society where the number of girls is greater than the number of male children one will find out a different system of courtship, marriage and family organization from where the case is reverse.

II. The physical factors

The surface of our planet is never at rest. There are slow geographical changes as well as occasional convulsions of nature in storm, earthquakes and floods. These changes in the physical environment sometimes bring about important changes in society. The flood in India may hasten the birth of model village in place of those which have been washed off or they may lead to the construction of dams in order to prevent future floods.

III. Technological Factors

Technology affects society greatly. A variation in technology causes a variation in some institution or custom. The introduction of machine technology as a result of the discovery of the new sources energy has made such far-reaching consequences that it is often described as a 'revolution'. Invention and discovery are significant characteristics of our age. The present age is often called the "age of power", the scientific age. For example mechanization has changed not only the economic structure of society but also led to a study devaluation of old forms of social organization and old ideologies.

a) Changes in the production technology

Our attitudes, beliefs and traditions have crumbled before technological advance. Take the familiar example of status of women in industrial age. Industrialism has destroyed the domestic system of production, brought women from the home to the factory and the office and distinguished their earnings. It has meant a new social life for women. Changes in agricultural techniques have affected the rural community. With the invention of new agricultural tools, chemicals and fertilizers agricultural production has increased and thereby

the standard of living of rural people rose. Fewer people needed for agricultural labourers shifted to cities.

b) Changes in the means of communication

The changes in the means of communication have also affected the social life greatly. However, the changes in the means of communication depend upon the production technology, for example, the newspaper and automobile are industrial products that have been made possible by modern technological developments.

The primary techniques of communication are speech and gesture, which greatly influences the intimacy and understanding between people of different societies and groups. The press has influenced entertainment, education, politics, and trade. Similarly radio, telegraph, telephone, television, etc has influenced the business, public opinion, recreation and furthered the development of new modes of organization.

c) Changes in the means of Transportation

Transport is the physical consequent of space. The methods and means of transportation determine how easily man can move themselves and easily meet the people of other places or other societies to exchange goods or ideas. Modern man lives so much on wheels. If the wheels are stopped for a single day, the life of modern society would be put out of gears.

Transport has broken the barrier to cultural isolation. People who were culturally isolated may under modern means of transportation technology become a host for the entire world. The new transport modes have played significant role as the diffusion of cultural elements.

d) Derivative Social Effects

Invention influences the institution or customs. The influence does not stop there, but continues on and on. For example, the influence of cotton gin in USA was to increase cotton process more quickly with less labour. But cotton cultivation could not be increased without more labour. So additional Negroes were brought from outside and slavery grew very rapidly. The increase in slavery was the second derivative influence of the cotton gin. The increase in slavery led to the Civil war, the third derivative influence of the cotton gin.

e) Social inventions may bring social changes

Technological invention may also give rise to social inventions. Social inventions are inventions that are not materials and not a discovery in natural science. Non cooperation movement, boycott, representations, old age pensions, juvenile court, civil service,

matrimonial bureau, rotary and other such clubs, are some of the examples of social inventions. So, non-material inventions are social inventions.

This social invention brings about social changes. It is quite evident.

IV. Cultural Factors

The social and cultural factors are so closely interwoven. All cultural changes involve social change. Culture is not something static. Culture gives directions to social behaviour.

Measures of Social Chance

Following are the indicators of social change

i.   Nutrition - Calories consumed per head, protein consumption quantity, etc.

ii.   Clothing - Quantity and quality of cloth used per head.

iii. House - Number of houses for the population. Normally one house should be available for five members.

iv.   Health - Number of hospitals, beds, nurses and doctors available per 10,000 populations.

v.   Education - Percentage of children going to school, literacy level, women literacy level, technical education facility available at school and colleges, etc.

vi.   Media exposure - Number of radio sets, TV sets, cinema seats, newspaper, etc. per 10,000 populations.

vii. Communication - Length of railways, black topped road, and transport number of vehicles, etc for 10000 population and number of post office and maximum distance for the population to walk to the post office.

viii. Energy - Percentage of village and town with electricity, domestic consumption consumption of electricity, number of pumpsets in cultivation, etc.

ix.   Proportion of industrial workers

x.   Birth and death - Decreased trend in both the birth and death is a good indicator of rate society's development.

xi.   Urbanization - Proportion of population living in urban area, proportion of population living in slums, etc.

Any similar factor can be taken up to study the social changes based upon the nature of the study, its objective, availability of factors, their importance etc. The success of the researcher depends on how he selects appropriate variables, quantifies them and concludes and changes.

10. LEADERS AND LEADERSHIP

It is difficult for any country to provide enough number of extension workers to reach each and every family for its development programmes. It is rather more difficult for the developing countries where the resources are scarce. This problem can be solved to some extent through the use of local leaders.

A local leader who has adopted improved practices extends the same to others. The common man has much faith in local leaders. A villager would like to hear and imitate his own neighbour as compared to accepting the advices of an outside change agent. Moreover there is a healthy competition among the villagers which promotes action among them.

There is no doubt that extension worker also has to play the role of leader but he may confine his role to the few selected contact farmers. The information from the extension workers will reach these leader farmers which will further trickle down to other people from the leader farmers. These leaders would like to act as local leaders and feel pleasure in serving to others.   They must have certain qualities. He should be a person from the same community and has the same type of resources. It has been often observed that innovators and big farmers do not pass on freely their knowledge to other people in the village due to some gap. It is, therefore, essential for the students of extension education to study the process of leadership. Once the process of dissemination through leaders is known the introduction of new ideas through village leaders can be solved to a great extent.

Leader

1) Leader is a person who has been spontaneously considered or chosen as being

   influential.   - Dahama & Bhatnagar

2) Leader is the servant of the group. The position of leader is an essential mechanism of

   effective group organization.   - Sanderson

3) Leaders are persons who are selected by the people because of their special interest or fitness to work on several phases of the local programmes. - J. S. Gang

4) A leader is one who, in a social situation, can elicit (stimulate) positive reaction from other members of the group.   - B.M.Stogdill

Leadership

According to Niderfrank (1966) leadership is essential in simply influencing attitudes and actions of one or more persons leading towards the achievement or so purpose.

"Leadership is an act that influences" says Tead (1926).

Cartwright and Zender (1960) perceived leadership as the performance of all that help the group to achieve its preferred outcome.

Lester (1975) defines leadership as the resource that an individual or group USI to enable the organization to do what it needs, should or wants to do.

According to Davis (1977) "Leadership is the ability to persuade others to seek defined objectives enthusiastically".

Dahama and Bhatnagar (1985), leadership is the process who in any social situation with his ideas and actions influence the thoughts and behaviour of other Leadership are the process of influencing the thoughts and behaviour of others towards goal setting and goal achievement.

Functions of Leaders

There is no unanimity of opinion as to what the functions of leadership are. Generally speaking leadership functions are related to goal achievement and to the maintenance and strengthening of the group.

According to Barnard, a leader performs four main functions. They are:

- Determination of objective
- Manipulation of means
- Control of the instrumentality of action; and
- Stimulation of coordination action.

According to Dahama and Bhatnagar (1985) following are the functions:

a) Executive

b) Planner

c) Policy maker

d) Expert in human relations as well as technical field.

e) External group representative

f) Controller of internal relationship

g) Purveyor of reward and punishment

h) Arbitrator

i) Exemplar

j) Group symbol

k) Surrogate of individual responsibility

l) Idealist

m) Father figure and

n) Scape goat.

Classification of Leaders

Different authors classified the leaders in different ways. Some of the classifications are:

I) Beal, Bohlen and Raudabaugh (1962) classified the leaders into four types as;

a) Born leaders

b) Passive leaders (personal power or characteristic leader)

c) Bureaucratic leaders and

d) Democratic leaders

2) Mott (1972) spoke about three major leadership categories

a) Democratic

b) Multifactor and

c) Situational

3) Henning (1962) analyzed the leadership and given the following three:

a)   Autocrat

b)   Bureaucrat and

c)   Neurocrat

4) Lester (1975) also pointed three types as:

a)   Autocratic

b)   Democratic and

c)   Free rein

5) Haiman (1951) described five categories as the

a)   Executive

b)   Judge

c)   Advocate

d)   Expert and

e)   Discussion leader

6) Carter (1961) identified three leadership patterns according to the manner in which the leader was mostly oriented. They are,

a) Personal

b) Institutional and

c) Flexible

7) Sachdeva and Vidyabhushan (1974) studied three main leadership types as;

a) Authoritarian

b) Democratic and

c) Laissez-faire

8) Dahama and Bhatnagar (1985) found several ways of classifying leaders, some of them are;

a) Democratic, autocratic and laissez-faire

b) Formal and informal leaders

c) Professional and lay (voluntary) leaders

d) Political, religious, social and academic

e) Elected, selected or nominated

f) Popular and unpopular

g) Traditional and progressive leaders

Characteristics of Leaders

The characteristics of leaders differ. The characteristics of three types of leaders are as detailed:

1) Autocratic

a) Determines all policies, activities and goals of the organization.

b) Takes no part in work except when conducting meeting, telling others what to do or demonstrating.

c) Members are uncertain about what to do and usually take actions they are told to take.

d) Leader is personal in both praise and criticism of the work.

2) Democratic

a) Produces a shared leadership that permits a feeling of satisfaction and achievement.

b) Helps the members of understand the steps required in working.

c) Members take more responsibility for group maintenance and task performance.

d)

3) Laissezfaire

a) Gives minimum guidance

b) Remains in the background and seldom express an opinion or works with a minimum of roles.

c) Members often act as leaders in making decisions that guide the organization.

Democratic leadership

In extension education, the extension worker will be dealing mainly with democratic leadership. Therefore it will be worthwhile to know their advantages and limitations.

Advantages

- People fully understand those ideas which they have helped to formulate.

- Decision made by the group members will get more support from the members.

- Democratic leadership enables the society to grow upon all of' the human resources that are available to it.

- Democratic leadership creates strong, responsible and self-reliant individuals.

- It builds a group which will not fall apart if something happens to the leaders.

- Democratic leadership makes for higher morale in a society than does the autocratic leadership.

- Those who disagree with group decisions are free to express their discontent, even though they may have to abide by the group decisions.

- It is always opened to the possibility of change.

- The method of making social decisions is important as the decisions themselves.

Limitations

- The vocal and powerful members become dominant, thus creating sense of inequality in the group.

- Policies are agreed upon verbally in groups which do not automatically provide an answer to every specific question which arises.

- Problem of individual who refuses to confirm to group decisions.

- Decision making is a time consuming process. The officials have to face the tyranny of indecisions.

- Participation of large number of people becomes a problem, because the physical limit to the number of people who can work together conveniently at one time.

Quality of leaders

Dahama and Bhatnagar (1985) brought out the determinants of effectiveness in leadership functions (ten 'A's).

1. Awareness of the functions of the group.

2. Ability (self-adjustment) in performing the functions

3. Achievement of goals

4. Assignment of group functions to members

5. Appraisal of effects of distribution of functions

6. Accomplishment of different purposes under different environments

7. Attainment of positive value as a leader

8. Attaching a high code of conduct, ethical values and high morale in the group

9. Arrangement of communication structures

10. Acceptance of failure

They have also identified through researches the most important factors for effectiveness of leaders. The factors identified are given below:

1. Need fulfillment

2. Prestige

3. Valued membership

4. Co-operative relationship

5. Heightened interaction

6. Clarity of goal

7. Small units

8. Homogeneity

9. Outside events

10. Increased position

11. Attack from environment

Reddy (1987) tested the following traits or qualities as desirable for effective leadership.

1. Physical fitness

2. Mental ability (intelligence)

3. Sense of purpose (having definite ideas regarding the aims of the group)

4. Social insight (sensitivity to other person's position problems or points of view)

5. Communication (including good listening and speaking acceptably in public)

6. Love for people (friendliness without favoritism or without giving scope for indiscipline)

7. Democracy (giving all members equal opportunities for participation, etc.)

8. Initiative

9. Enthusiasm

10. Authority (based upon mastery of knowledge and skills in a particular field)

11. Decisiveness (ability to make good and prompt decisions or judgments)

12. Integrity or character

13. Teaching ability

14. Convictions and faith

Role of Leaders

Reddy (1987) brought out the following eight important roles.

1. Group Spokesman

Leader has the responsibility to speak for the group and representing the group's interests and position faithfully and accurately.

2. Group Harmonizer

All groups will usually have both uniformities and differences of opinion. The leader is responsible for pointing out to the group when potential conflict situations arise, that the common purpose is sufficiently worthy of co-operation that the differences be resolved peacefully.

3. Group Planner

Generally persons are chosen for leadership positions because it is assumed that they know a little more about the problems confronting the group and their possible solutions than do the other members of the group. The group expects its leader to have new ideas for initiating activities. To meet this expectation leader must be able to plan, and visualize in his imagination, the ways by which the group can satisfy its needs.

4. Group Executive

Most groups have established some methods of conducting business and achieving consensus of opinion on issues that come up before them. The leader is one who presides when the group is conducting business. As a group executive the leader is responsible for seeing that the business of the organisation is carried on according to democratic principles.

5. Group Educator or Teacher

Leader must share with the followers' his knowledge and experience. Such sharing of experience and insight is teaching. Good leadership depends a large part upon because the good teacher is not a dictator.

6. Symbol of Group Ideals

All social groups have implicit or explicit norms or ideas. As a rule, persons accepted as leaders are those who have accepted these norms and live by them. The group expects his leadership to embody the ideals of group.

7. Group Discussion Chairman

This role is more related to that of group executive. In recent years there has been an increased interest in group discussions. Generally a group meets for a panel discussion or a forum or a group thinking conference as something apart from the routine business of the organization.

8. Group Supervisor

The leader has to work with followers and also with group organizations like youth

clubs, co-operatives, farmer's associations, etc. Therefore this role becomes important for the leader.

Dahama and Bhatnagar (1985) ascertained the role expectations of farm leaders in view of the new strategy of agricultural production from the experts in the field of agricultural extension. By working out the index, following were identified as the expected role of farm leaders.

1. Raising demonstration plots and showing it to others.
2. Keeping themselves abreast with the latest agricultural technology.
3. Adopting themselves all the improved agricultural practices.
4. Organizing meetings and other discussion groups.
5. Serving as marketing advisers.
6. Supplying the improved seeds to the farmers.
7. Assisting the farmers in getting credits.
8. Serving the innovative farmers in the village.
9. Educating the farmers to grow more than two crops a year.
10. Acting as liaison officers between the extension workers and the farmers.
11. Educating the farmers in the latest agricultural technology.
12. Helping the fellow-farmers in getting the needed agricultural inputs.

Singh and Saraswat (1968) as quoted by Singh (1987) studied the important roles of leaders in promoting the rural development efforts. They are:

1. They co-ordinate the efforts of the group to achieve its goals.
2. It is the responsibility of group leaders, to establish proper social climate in the group.
3. Leaders assist the groups to organize themselves.
4. They promote the message of the extension agencies.
5. They help extension workers in planning and executing various development programmes.
6. They act as demonstrators for the innovations.
7. It is their job to create better inter-group and intra-group coordination.
8. They also act as spokesman for their respective groups.
9. Local leaders help the group to make the effective decisions and develop scientific decision-making process.
10. They encourage the members to learn from each other's experiences.
11. They develop self confidence in the followers to solve their own problems.
12. They act as model for other members.

13. They help in establishing favourable climate for various developmental agencies to start their work.

14. They support and motivate the followers to make self efforts for realizing their needs.

15. They take an active part in organizing and the functioning of various institutions.

Advantages of Leaders in Extension

Reddy (1987) brought out the following advantages and limitations of leaders in extension.

Advantages

1. Local leaders virtually play the role of extension teachers and hence the volume of coverage with improved practice is increased.

2. Cost of extension is reduced, as local leaders are not paid for their work.

3. Local leaders themselves become better taught, because of the experience they gain in teaching and influencing others.

4. People accept a new idea more readily from a local person who has practically tried it, while they may resist if the ideas were to come from a paid extension workers.

5. The frequent association of extension personnel with the local leaders enhances his prestige.

Limitations

1. Persons selected as leader may not have the expected following among neighbours.

2. Sometimes they may not be willing to devote required time to work or may be a poor teacher.

3. Considerable time is required to locate and train local leaders.

4. Local leaders may try to use prestige with position for personal advantage.

Public recognition and publicity given to informal local leaders may sometimes jeopardize their position, and adversely affect their influence among the people.

11. SELECTION AND TRAINING OF LEADERS

Selection of leaders

Various methods have been used by different researchers for identification of leaders. Some of the common methods of locating leaders are discussed here.

1. Sociometry: All the members of a community, group or organization are asked to name three persons in order of preference as their leaders from the same group. The name obtaining the maximum choice is accepted as the possible leader. In this method, every member of the group has to mention his choice. Assumption is that, a person liked by majority of the people is the most popular in the group and is capable of leading the group.

Advantage

1. It is easy and valid method.
2. Suitable to most of the situations.
3. Leader selected through this method may be able to organise group activities in a better way, because he has the majority support.
4. More than one leader can be located for different jobs at the same time.

Limitations

1. It is difficult to contact all the members of the group especially in big communities.
2. Selected person may not be interested to take up various responsibilities.
3. He may not be neutral person.
4. Statistical analysis of this method is complex and time consuming.

2. Active participants: In any group activity, the persons taking more active part can be spotted out. These are the persons who are taking initiative to make or lead in making the decisions relative to the events or actions selected. Active participants can also be located in the community meetings. Active participation is an indication of their leadership ability.

Advantages

1. It is a simple method and does not need special efforts.
2. It is possible to find out a willing and hardworking person.
3. In addition to locating leaders, one can get other information also.
4. Replacement of a leader, if not found suitable is easy.

Limitations

1. There are chances of making wrong choices.
2. Selected person may not be popular among other members.

3. Real leader may not be present at the occasion.

4. Suitable person for a particular job may not be taking active part in that activity.

3. Social Participation: Higher the social participation of a person the more is the promise in him of becoming a leader. It is assumed that a person already having active participation in the existing organizations will be useful to provide leadership in the new situation. In this method, the selection is made of those people who are already in positions in other organisations.

Advantages

1. Less chances or risk because, selection is made of a person who has already exhibited his leadership qualities and is popular among the people.

2. Past experience of the leader can be made use of in the new situation.

3. It will be possible to get support from other organizations.

4. He can also get official support for the programme due to his social contacts.

Limitations

1. As he is already busy, it may not be possible for him to find time to participate in the new activities.

2. Social distance may be more between these leaders and the people.

3. This method can be applied in those situations where very few or no social organization exists.

4. These operators may not be active members of a particular group.

5. **Informal meetings:** In this method, the opinion of the group members selected at random is obtained through informal meetings. They are asked to name those persons to whom people go to seek for ideas or help in emergencies. Persons having respect of the neighbourhood or groups can be nominated as leaders.

Advantages

1. Risk is less in this method, as one is contacting members of all the sub-groups.

2. This method is applicable in almost all the situations.

3. It can be used as an extra advantage to other activities.

4. It is possible to find a popular and acceptable man.

Limitations

1. In certain cases it may not be a representative selection.

2. Sometimes it becomes difficult to find a person acceptable to all the sub-groups in a community.

3. It takes comparatively long time.

4. It may not be possible to choose a representative sample.

5. Formal leaders: Formal leaders are those persons who hold offices in formal organizations. They are very easy to locate. One has to pick persons who are in formal organizations and public official positions. Any how, it is essential to win the confidence of these leaders; otherwise they can create many obstacles for the successful implementation of the new programme.

Advantages

1. It is easiest method.
2. Being in formal position, these leaders may have more influence among the people.
3. They have more contacts with formal change agencies.
4. They are generally resourceful persons.

Limitations

1. They may not be practical persons, (e.g.) Active farmers.
2. Generally, there is more social distance between them and the common man.
3. They may not have enough time for the new programme.
4. In most of the cases they are not action-leaders.

6. Persons with Reputation: These are certain persons who have the reputation for actual or potential leaders for a particular job. Even the persons having reputation being honest, intelligent and helping-hand can be selected to act as leaders because people have faith in the integrity of these people. This method is similar to the history method.

Advantages

1. Few chances of wrong selection.
2. This method is easy, simple and needs less time.
3. Past reputation will help in win the confidence of others.
4. There will be better social climate.

Limitations

1. Selected person may not be suitable for a particular type of leadership role.
2. Persons selected through this method might lack technical knowledge.
3. He may not be interested to act as a leader.
4. He might be lacking in other leadership qualities.

7. Self - rating Technique: In self rating technique each respondent is asked to evaluate his own abilities to act as a leader. How far others think him as influential? The success of this method depends upon frankness and boldness of a person to express his feelings.

Advantages

1. Only those persons who are willing to act as leaders will be selected.

2. It also measures that perception of individuals.

3. It is easy to work with these leaders.

4. It proved unsuccessful, there will be less difficulty in replacing these leaders.

Limitations

1. Success depends upon the accuracy of the information. There are chances of over estimation or wrong evaluation of the self.

2. It is a difficult method and needs more time to contact persons individually.

3. Persons selected through this method may not be very popular among other members of the group.

4. There are chances of getting too many people or none.

8. Information Ratings: In this method, three or four judges are appointed to nominate the persons suitable to act as leaders for a particular activity. The names obtained in this way are sorted out by frequency mentioned, and those of high frequency are accepted as possible selectees. Only those persons with good reputation, (e.g) school teachers, officials religious persons, in a village be asked to act as judges.

Advantages

1. It is simple method and needs less effort.

2. It is also a time-saving method.

3. There are more chances of getting an accurate and detailed picture.

4. It is based on their ratings of the judges.

Limitations

1. Judges may have biased opinion

2. Informants may not be having through knowledge.

3. In certain situations, suitable informants may not be available.

4. It may become difficult to have unanimous choice.

Some of the other methods used for the selection of leaders are:

9. Election: The members of the group elect the leaders through vote.

10. Discussion Method: A discussion is arranged to find own one's proficiency on a subject matter. Individual's ability is assessed and recognised. On any subjects the person has sound knowledge a discussion is arranged and an individual's ability is soon recognised. Discussion gives encouragement and assurance to the potential leader to express himself, and over a period of time may make him more confident in ac some position of leadership and emerge as a value leader.

11. The Workshop Method: Through this method, where the large group breaks smaller groups and the responsibility of the programme and decision-making rests upon the smaller unit, leadership emerges in each group. Over a period of time, the extension worker can spot certain leaders who come to the front in taking responsibilities. The Extension worker or professional leader in the workshop has the position of an observer, discussion group leader, etc.

12. The Group Observer: The extension worker should watch a community or group in action and then he will be able to spot potential leaders. He may observe the community in any type of situation. For obtaining the best results, the group should not be aware of this.

13. Seniority and Past Experiences: In some communities the oldest person is supposed to have the most knowledge and experiences and normally can able to stabilize the group. But this may not be a proper way of locating leader.

Training the leaders

Need for training

Persons identified as leaders may sometimes lack some of the essential attributes of leadership and may not be up-to-date in their knowledge and experience. Therefore make best use of them as leaders in extension work, they need to be given adequate training to improve their caliber, and develop their latent capacities for leadership.

Objectives of training: According to Singh (1987) the training objectives is to:

i. Attract the genuinely interested persons who are either self motivated or externally stimulated to take part in the course,

ii. Impart new knowledge, teach better skills and bring about the desirable changes in their behaviour,

iii. Place the latest knowledge in the hands of desirous persons,

iv. Develop acquaintance between the farmers and specialists and also the scientists,

v. Encourage mutual exchange of experience among the participating farmers,

vi. Pave way for the flow of problems of farmers to the research system and

vii. Enhance faith in the research findings.

When to organize farmer's training

The following pre-requisites are essential or the success of training programmes.

i. Availability of sound technology that is superior to the prevalent practice.

ii. Farmers realize that by adoption of technology they can get more profit.

iii. Qualified and trained personnel who can successfully transmit new technology.

iv. A desire on the part of the farmers on the specialized topic.

    v.   There are increasing numbers of problems that can be solved by the specialists rather than a generalist.

   vi.   There is large segment of clientele which is neither affluent enough to take initiative to obtain information individually by their places to pick any ideas.

In view of the above pre-requisites it can be hypothecated that there is a necessity to train the farmers.

These training programmes for farmers should be timed so as to synchronise with slack seasons or periods when the local leaders will have leisure or relatively less pressing items of work.

It has also been found more desirable to have training camps of short duration of 3 to 5 days, followed by frequent and systematic contacts between extension workers and local leaders.

Where to Train

Using well-established training institutions for this purpose has been found to have some disadvantages such as:

    i.   The need for leaders to travel long distance and stay at the institutes resulting in more expenditure in terms of both money and time, and

    ii.   The nature of training imparted by such institutions is not of local interest to the trainees. Due to the above limitations the trainings are conducted in local environment itself (i.e.) in villages, providing training to leaders in their own home environment are becoming popular in several places.

What to Train

    i.   Theoretical information should always be related to practical situations at every step.

    ii.   The subject should be in the nature of problems encountered by the local leaders in their respective areas. Hence the content of the training programme should be problem-centered.

   iii.   The following contents may be considered.

       a)   aims of rural development

       b)   leadership in rural society

       c)   community organisation principles, methods and techniques including methods of stimulating group thinking, group planning and group action.

       d)   Co-operative principles and methods with particular reference to coordination of local bodies.

       e)   Practical activities of community life like education, recreation, anti-crime, public

health, agriculture etc.

How to Train

There can be either informal methods or formal method of training.

Informal Methods: It may be (i) Observation, (i.e.) noticing how others have performed. This may be a visit to farmer's holdings; (ii) Reading the printed literature, circular letters, etc. from community development workers and (iii) Talking with other leaders progressive farmers or others in the field of interest.

Formal Methods: (i) Lecture. It may be supplemented with other formal methods, (ii) Discussion and workshop, (iii) Forum, panel or symposium, (iv) Audio-visual aids, (v) Field trips, (vi) Apprenticeship-learning things by staying with others who have adopted improved practices, (vii) Training groups formal leader training camps, (viii) Direct assistance from experts, (ix) Buzz group-discussion by all in the group of less than seven persons and (x) Giving responsibility to local leaders so that they develop self confidence.

Suggestions for Improving Farmer's Training

a) Training must reach the farmers where they are. Attendance of institutional training will always be thin than off-campus training. Further in institutional training participating farmers feel that many innovations demonstrated on institute farms may not be successful at their own farms. It is always better to have the training in villages.

b) Training must be directed, especially to farmer's present interests and needs. It should also be directed to the farmer's monetary interests.

c) Training must accept the fact that the trainees are adult farmers. They are not children. So they should not be trained in the way children are trained.

d) Training must be fitted into the period when farmers are not too busy, during evening or off-season.

e) The subject must be a new or changed practice, explaining why is it? Why it is superior, how can it be carried out? etc.

f) Training must be accomplished by immediate opportunities for farmers to try the new things they have learnt like application of fertilizers, use .of equipment etc., and also make the things available to them.

Farmers need encouragement to try things. Acquiring knowledge and skill, is not enough.

They also need encouragement to try out new practices.

12. EDUCATIONAL PSYCHOLOGY

Introduction

Educational psychology is the systematic study of development of individual within the educational setting. Human behaviour can be understood, predicted, and directed towards desired goals by applying the principles of educational psychology. Educational psychology studies the individual through the life stages as he acquires new knowledge. As educational psychology is concerned with educational process from birth to death of an individual.Its scope is very wide concerned in the areas of the learner's developmental characteristics, individual differences, intelligence, personality and mental health.

Increasing use of psychology is noticed in various spheres of life and extension education is no exception to it. In extension education, the development workers deal with rural people to teach the rural people about innovations to be adopted in their farm, home and village. In as much as the extension worker is involved in educating rural people most of the concepts discussed in this chapter are applicable to extension educational psychology. The only difference between them is that the learners are children in the subject of educational psychology and the learners are rural adults in extension educational psychology.

The main aim of extension education is utilising the research findings in solving the problems of rural people and they must attain desirable changes in the values and attitudes. Bringing this change is one of the major concerns of extension educational psychology. Thus, the main job of the extension worker is to teach the rural people. The learning experience is given in the areas in which rural people are interested. Thus, one could see the importance of educational psychology in extension education.

To understand the educational psychology and social psychology the knowledge on psychology is essential. Therefore, the derivation, definition and other details of psychology are discussed in this chapter.

Derivation of the term

The term psychology was derived from Greek; *'psyche'* meaning is soul or Atman *'logus'* means Science. Hence about 2500 years back it was referred to a *'science of soul'*. In olden days, it was believed that soul was responsible for various activities of man such as thinking, imagining, reasoning etc.

In the Middle Ages psychology became a *'science of mind'*. Then after sometime, it became the *'science of conscience'*. This definition was criticised from *'abnormal psychology'* which brought the study of unconscious part of the mind. Then in 20th century psychology

assumed scientific look and it became the *'science of mental behaviour'.* By observing one's behaviour we can have a knowledge of one's conscious and unconscious minds.

Definition of psychology

a) Psychology is the science of human and animal behaviour.

b) Psychology is the positive science of human experience and behaviour.

c) Psychology is a field of study which seeks scientific methods to describe, understand, predict and control the behaviour of living organisms. Literally psychology means the science of mind.

Meaning of psychology

An individual's behaviour consists not only of his observable act but also all his reactions to inner states and to environmental factors of influence. The human organism is extremely complex. The environmental factors that can affect the organism include all the persons.

Any person's interaction with his environment represents many different kinds of experiences that vary in intensity and values to him and to others. Psychology is concerned with discovering the ways in which individuals and groups at different age levels, tends to respond to environmental stimuli. To the present, some tentative psychological principles have been evolved. The data obtained from scientifically conducted studies of human behaviour, is concluded that people tend to react similarly in certain situations and under certain conditions.

Although human behaviour seems to follow certain general trends, individuals tend to respond differently to different elements in specific situations. Psychologists are interested in the *Why* as well as *what* of both similarities and differences among human reactions. Various schools of thoughts have arisen. Most of the pertinent assumptions are:

a) human behaviour is functional and dynamic.

b) at every stage of development, an individual's reactions are influenced by effect of his experiences with people, things, situations and environmental conditions upon his desire to satisfy felt needs, wants and urges.

c) a person's reactions usually represent the functioning of a total integrated pattern of behaviour.

Educational Psychology

It deals with the behaviour of human beings in educational situations. This means that it is concerned with the study of human behaviour or the human personality, its growth, development and guidance under the social process of education.

It is a branch of general psychology which deals with various aspects of psychological factors affecting education, teaching and learning processes. It describes and explains the learning experiences of an individual from birth through old age. Its subject matter is concerned with the conditions that affect learning.

Educational psychology can be regarded as an applied science in that it seeks to explain learning according to scientifically determined principles and facts concerning human behaviour. In the light of available data, educational psychologists attempt to discover.

i. the extent to which the factors of heredity and environment contribute to learning.

ii. the nature of the learning process.

iii. the educational significances of individual differences in rate and limit of learning.

iv. the inner change that occur during learning.

v. the relation of teaching procedures to leaning outcomes.

vi. the most effective techniques for evaluating progress in learning.

vii. the relative effect upon an individual of formal learning as compared with incidental or informal learning experiences.

viii. to value the scientific attitude towards education and

ix. the psychological impact upon learners attitude of sociological conditions.

Scope and its importance in agricultural extension

1. Educational psychology studies the limitations and qualities of individuals -physical capacity, intelligence, aptitude, interests, etc. which plays a major role in one's learning.

2. Its helps in improving teaching and learning. This branch helps in formulating training programmes for improving the skill of teachers and methods for organizing good learning situations.

3. It helps to have better education through evolution of syllabi for different level of education, preparation of different text books, development of examination patterns, etc.

4. Psychology attempts to discover the source of knowledge, belief, and customs and to trace the development of thinking and reasoning so as to find the kind of environmental simulation that produces certain type of activity.

5. It will help extension workers to find causes of prejudices, the habit of sticking to old practices and ways of doing things, the doubts and lack of confidence and factors affecting motivation.

6. It also helps them to know the emotions and feelings of farmers, how villagers or

farmers learn new practices and what type of approaches are adopted and teaching aids are used.

Social Psychology

Social psychology, as discussed earlier, attempts to determine the character of social behaviour. Social behaviour involves one of the four following basic reactions.

i. When one individual meets another individual there is reaction. Each individual affects the other individual with whom he comes into contact is inturn affected by them.

ii. Individual may be reacted to group (e.g.) extension worker meeting a group of farmers.

iii. As a counterpart of the above situation there will be reaction of group individuals to a single individual (e.g.) group meeting its leader.

iv. There is reaction of one group of individuals to another group of individuals.

v. Social psychology studies the characteristics of all these four forms of social behaviour. It must, however, be borne in mind that social psychology studies the individual and not the group itself. Social psychology studies the individual in relation to his fellow-men.

Scope of social psychology

The world is set by many ills which may be ascribed to difficulties in interpersonal relationships. Caste, prejudice, industrial unrest, crime, and delinquency are some of the major social problems. It is the task of social psychology to help to understand how these problems arise and how they can be controlled and predicted.

Another very important development in social psychology is it concerns the problem of the formation, change and measurement of social attitudes. The investigations have helped us to understand the way in which a person perceives his group and other groups. They also help us to understand how prejudices arise and why they resist the call of idealism on one hand and the realities on the other. We will also study the methods adopted to study public opinion in the recent years. Public opinion research has advanced considerably.

In brief we shall have to study such fundamental process as how the individual perceives his social environment, how he learns his social behaviour and how he achieves his social goals.

Meaning of Social Psychology

From the above description it can be realized that this discipline is one the border land between the two branches of knowledge - sociology and psychology.

Some look this branch as knowledge itself or a special science. Some look upon it as a discipline that engaged itself in the study of those problems of social life which are not adequately studies by either sociology or psychology. It is asserted that it fills the gap between the two sciences and the analogy is put forward that social psychology is to study sociology and psychology what bio-chemistry is to biology and chemistry.

Definition of Social Psychology

Social Psychology is therefore, defined as the branch of knowledge which studies the relationships arising out of the interaction of individuals with each other in social situations. In brief, it deals with thinking, feeling, and acting of an individual in society.

Intelligence is an <u>umbrella term</u> describing a property of the <u>mind</u> comprehending related abilities, such as the capacities for <u>abstract thought</u>, <u>reasoning</u>, <u>planning</u>, <u>problem solving</u>,<u>speech</u>, and <u>learning</u>.

Intelligence derives from the Latin verb *intelligere* ("to understand", "to choose between"); per that rationale, "understanding" (intelligence) is different from being "smart" (capable of adapting to the environment). Scientists have proposed two major "consensus" definitions of intelligence:

(i) from *Mainstream Science on Intelligence* (1994), a report by fifty-two researchers:

A very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience. It is not merely book learning, a narrow academic skill, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our surroundings — "catching on", "making sense" of things, or "figuring out" what to do.

(ii) from *Intelligence: Knowns and Unknowns* (1995), a report published by the Board of Scientific Affairs of the American Psychological Association:

Individuals differ from one another in their ability to understand complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning, [and] to overcome obstacles by taking thought. Although these individual differences can be substantial, they are never entirely consistent: a given person's intellectual performance will vary on different occasions, in different domains, as judged by different criteria. Concepts of "intelligence" are attempts to clarify and organize this complex set of phenomena. Although considerable clarity has been achieved in some areas, no such conceptualization has yet answered all the important questions, and none commands universal assent. Indeed, when two dozen prominent theorists were recently asked to define intelligence, they gave two dozen, somewhat different, definitions.

Moreover, besides the foregoing organisational definitions, these psychology and learning researchers also have defined intelligence as:

Researcher	Quotation
Alfred Binet	Judgment, otherwise called "good sense", "practical sense", "initiative", the faculty of adapting one's self to circumstances . . . auto-critique.
David Wechsler	The aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment.
Cyril Burt	Innate general cognitive ability
Howard Gardner	To my mind, a human intellectual competence must entail a set of skills of problem solving — enabling the individual to resolve genuine problems or difficulties that he or she encounters and, when appropriate, to create an effective product — and must also entail the potential for finding or creating problems — and thereby laying the groundwork for the acquisition of new knowledge.
Linda Gottfredson	The ability to deal with cognitive complexity.
Sternberg & Salter	Goal-directed adaptive behavior.
Reuven Feuerstein	The theory of Structural Cognitive Modifiability describes intelligence as "the unique propensity of human beings to change or modify the structure of their cognitive functioning to adapt to the changing demands of a life situation."

Practical application — Furthermore, in clinical and therapeutic practice, such theoretic and academic definitions of intelligence might not apply to patients with borderline intellectual and adaptive functioning, whose treatments require comprehensive analysis of every diagnostic, testing, educational placement, and psychosocial factor.

13. PERSONALITY

Concept of Personality

Personality is the total quality of an individual. The word personality comes from the *Latin* word *persona* which means the mask worn by players in the theater. Personality consists of observable behaviour. It is defined as an individual, typical or consistent adjustment to his environment. The elements of personality are called the traits of personality, it is the traits that make one person different from another person in his behaviour. Shyness and sociability are different traits and characteristic of an individual. All characteristics which an individual possesses are his powers, needs, abilities, wants, habits, his goal and aspirations. His patterns of behaviour to objects and persons continue his personality.

Since an individual is a bundle of characteristics as traits we can define personality as an integrated pattern of traits. According to worth, one's personality is made up of high physique, instincts, and intelligence.

1.   Material self (his body, clothes, family property etc.)

2.   Social self (his home, club, office, church etc.)

3.   Spiritual self (his ability to argue and discriminate consciousness, moral sensitivities).

According to Medougali personality consists of his (a) disposition, (b) temper, (c) temperament and (d) character.

Definition of personality

Personality is that which makes one effective, or gives one influence over others. In the language of psychology it is one's social stimulus value. (May, M.A.)

A man's personality is the total picture of his organized behaviour, especially as it can be characterized basis fellow men in a consistent way. (Dashiell, J.F.)

Our personality is the result of what we start and what we have lived through. It is a 'reaction mass' as a whole.(Watson, J.B.)

Personality is the dynamic organization within the individual of those psychological systems that determine his unique adjustments to his environment. (Allport, G.W.)

It can, therefore be defined as an individual's typical or consistent adjustments to his environment. It is the most characteristic integration of an individual's structure, modes of behaviour, interests, attitudes, capacities and aptitudes.

Personality Traits

This may be regarded as a dimension of personality. For example, dominance-submission is a trait that a person may show in any degree. A trait is a description of human behaviour. The traits of a person describe his personality. One's traits and the ways they are patterned make him different from other person. In identifying defining traits, psychology has made considerable progress toward a specific and objective understanding of personality. Personality is unique. This uniqueness is the result of the difference in the traits of different individuals and in the dynamic organization of the traits. Some of the traits are ascendant, cheerful-gloomy, friendly hostile etc.

Cateel has given two types of traits (a) surface traits and qualities of one's behaviour that are observable directly in action and (b) source traits - the qualities at a deeper level.

Personality types

Jung has given this introversion - extraversion type in personality. Introverts will react negatively to situations; withdraw from the society, inwardly, selective. The introvert withdraws from the active participation in the objective world and he is interested in his inner world of thought and fantasy. He will not move freely with others. He won't express out his feelings and inner desires. He is sensitive to criticism, magnifies his failures and occupied with self- criticism.

Extroverts are opposite to introverts. Extroverts react positively and outwardly expressive. An extrovert is supposed to be thick skinned and relatively sensitive to criticism in his emotional expression, impersonal in argument, neither deeply affected by failure nor much occupied with self analysis of self - criticism.

Sheldon's classification (types)

Sheldon classifies the people into 3 types. (1) Endomorphy (2) Mesomorphy and (3) Ectomorphy.

In addition to this Sheldon also classified people into 3 types according to their temperaments. They are (1) Viscerotonia, (2) Somatotonia and (3) Cerebrotonia.

	Body types	**Temperamental types**
1	**Endomorphy** Large Viscera Soft body contours	**Viscerotonia** Love of comfort affection Sociability
2	**Mesomorphy** Heavy muscular development Ambitious Hard body contours	**Somatotonia** Vigorous, self -assertive
3	**Ectomorphy** Long, slender inhilated	**Cerebrotonia** Restrained

	Extremities, poor muscular development	Social withdrawal thoughtful

Measurement of personality

The measurement of personality serves both the criterial and practical purposes. When an individual who has difficulties of personnel adjustment comes for help to a psychiatrist, it is valuable to assess his personality. To measure the personality we have to measure the trails of personality. It is possible to measure needs, attitudes, interests, values and other personality characteristics also.

The following methods have been used for measuring personality characteristics.

1. The questionnaire method

This method involves the preparation of a list of questions or statements. Each one is concerned with some aspect of the feeling, attitude, habit or mode of behaviour related to the personality characteristic which is intended to be measured. The respondent is required to indicate his agreement or disagreement, acceptance or rejection, affirmation or denial of each statement. The questions are constructed in such a way that the affirmation of some and the denial of others express the presence of the trait that is measured. Each question is followed by 'Yes', 'No'. 'Untrue', 'Doubtful' or other similar responses. Here the respondent under line a response that shows his character.

Example:

i. In social gatherings, I like to be the centre of attention.

ii. In a meeting, I prefer to occupy a back seat.

iii. When you have to make an important decision, do you prefer some one else to decide for you.

Usually a personality test contains 30-50 items. This questionnaire method is also called objective test of personality. In this method the respondent should be truthful and very frank.

2. Projective Tests

Projective tests are so named because they induce the individual to project to put himself into the test situation or to identify with the person therein and by telling about them, to reveal his own motives, attitudes, apprehensions and aspirations.

The use of projective test is based on the mechanism of projection. The projective test is a device for measuring the personality which the person tested does not recognize as such. He makes spontaneous responses in the test. The test presents a highly ambiguous situation which the tests is required to perceive and describe, The situation has no definite

characteristics and on different persons perceive it in different ways. In perceiving the ambiguous situation, each person reflects his own needs, attitudes, habits, interests, and feelings and behaviour patterns. The projective method is called projective because in perceiving and describing the situation, a person brings out his personality characteristics.

Two well known projective tests are (1) Rorschach Inkblot Test and (2) Thematic apperception Test.

a) Rorschach test

Rorschach test was introduced by Hermann Rorschach. So the test was called after his name. This is most widely used test. It was first described in 1921 by Hermann Rorschach, a Swiss psychiatrist.

Rorschach test consists of 10 cards, each one having an inkblot on it. Some blots are coloured and some are in black and white. These cards are presented in regular serial order. The inkblot does not represent any subject. It is ambiguous or unstructured figure. The ambiguity of the blot results in the great variety of responses it produces. Such an inkblot is placed before the subject. He is asked to describe what he sees. He is also required to say in what portion he sees and what makes him see the object that he describes. His responses are noted and classified under different categories.

These responses differ from person to person. Some respond to the whole figure, some to the parts of the figure. Some respond to form a shape, some to colour or the white space between the coloured or black patches. Some see moving and others stationary objectives. Some see human figures or parts of human body. Others see animals. Classification of the responses made to the 10 cards by a subject shows that certain types and categories are made consistently. These responses are interpreted as indicating the personality characteristics of the respondent.

b) Thematic apperception test (TAT)

This TAT is also widely used projective Test. This TAT was first given by Murray. This test consists of 20 pictures. Each picture contains one or more persons in very ambiguous situations. For example, in one picture a very old woman is standing behind a young woman looking very serious. The subject is asked to write a story on each picture. The study should have a theme. It should say what is happening, and what is going to be the outcome or result.

In writing a story, the subject is expected to identify himself unconscientiously with a character in the story. The story thus express out his own needs and frustrations, feelings and attitudes, ideas of self and of others, real or imaginary and so on. One cannot get clue about

the characteristics of the subject from a single story. When one finds the recurrence of the same or similar characters, expressing similar feelings and attitudes, entertaining similar hopes and fears etc., one may be led to think that the stories reveal the person's own characteristics.

3. Personality rating

In this method one person judges or rates the characteristic of another person. The person who judges is the rater and the person who is judged is the rate. The basis of the rating is the rater's general impression drawn from his observation of the behaviour of the rates in a variety of related situations. For example, a class teacher may be asked to judge such personality characteristics of his pupils as orderliness, punctuality, industriousness, co-operativeness etc. The teacher may be asked to express his rating on each trait by locating the position of each pupil on a so called rating scale.

Example of a rating scale

Punctuality

5	4	3	2	1
Always in time	Generally punctual	Sometimes punctual	Generally unpuctual	Never in time

If the teacher feels that the student is highly punctual he would place him at the left end of the scale and give him the score of 5.

4. Situational test

In this situational test, a person is required to act in a situation which is specially arranged for the purpose of testing. The tester observes the behaviour of the testee while he is acting in the situation. Generally the testing is done in a group. For example, a party of 10 students is taken out and camps at the foot of hill. The students are given some cash. They are asked to plan and arrange for preparing their lunch. In this they will discuss and plan to report lunch. The teacher who accompanies them observes the behaviour of each and come to the conclusion regarding their personality character.

5. Interview

Interview is one of the methods to assess personality. The interview is a face to face situation consisting of the interviewee makes free and frank responses. The interviewer should win the complete confidence of the interviewer should win the complete confidence of the interviewee. He should establish with the interviewee of a relation of cordiality, warmth

and responsiveness. Such a relation has been called 'rapport' without a rapport no psychological interview can be success.

14. PERCEPTION

Perception is the process of understanding sensations or attaching meanings based on past experience to signs.

Characteristics of perception

1. *Perception shifts:* Just like attention perception also shifts. As we attend to one part of the stimulus we perceive that part and then as attention passes on to another part we perceive that part also.

2. *Perception is a grouping and combining response:* We put several stimuli together and make a joint response to it. When we perceive the face of a friend there are several stimuli coming to us from different parts of our face, eyes, ears, nose etc. We put them all together and understand it as a totality.

3. *Figure has advantage over background in perception*: There are no gaps in nature and the human mind also hates gaps. It tends to fill in gaps and perceive things as having a definite form.

4. *Perception is an isolating response:* We perceive the thing we select for our attention and do not perceive the things that are not attended to.

5. Perception follows the *'Law of Reduced cues'*. Applied to perception, the law of reduced cues means that as we become more and more acquainted with an object, the signs by which we can perceive it become less and less till at last, a fraction of the original sign is enough for us to recognize that object.

Determinants of perception

The various factors that determine our perception can be grouped as follows:

1. **The sense organs:** Perception depends upon the number, structure and function of the available sense organs. For example, if colours are not developed in the retina there cannot be perception of colour. Similarly absence of certain taste buds will limit one's taste perception.

2. *Brain function:* Perception depends on the nature of the brain function. This gives us various frames of reference against which perception is made. Certain relations such as bigger and smaller, lighter and heavier, above and below etc., are all perceived because of the function of the brain.

3. *Past experience:* Perception also depends on one's past experience: The few light sensations that come from a ship are interpreted as a ship because of our past experience. We are able to supplement a number of characteristics that are not sensed

at the particular moment. Past experience may also influence perception in the form of creating various kinds of prejudices and assumptions regarding the object perceived.

4. *Set or attitude:* Perception also depends very much on one's set or attitude. This is the subjective conditions.

5. **Organic conditions:** One's organic condition will also influence his perception. The individual who is starving from hunger will easily perceive the eatable objects. One's motive also determines his perception.

Errors of perception

There are several possibilities of our perception process being wrong and misleading. Such errors of perception are studied as two different phenomena viz., illusions and hallucinations.

a) Illusions:

An illusion is a wrong or mistaken perception. The perceptual process always involves an interpretation of the sensory experience in the light of our past experience or recent attitude, our organic needs etc. In some cases this interpretation is done wrongly and so the stimulus is perceived wrongly. Such a phenomenon is called 'illusion'. (Eg: We perceive the coil of a rope in darkness as a snake).

Psychologists have experimented with a number of geometrical designs to understand the phenomenon of illusion. Two of the well known examples,

1) Muller-Lyer Illusion

2) Horizontal-vertical illusion

In the Muller-Lyer illusion there are two straight lines of equal length. One bounded at the two ends by pairs of short opening outwards. The other is bounded by two pairs of short lines which are reversed and give the idea of closure.

Though two lines are equal in length invariably the latter is perceived to be shorter than the former. This is an illusion.

In the horizontal-vertical illusion there are two straight lines, one is horizontal and other is vertical. Both are of equal length. But invariably the vertical line is perceived to be longer than the other.

b) Hallucinations

We perceive a figure or an object purely because of our subjective conditions, when there is no stimulus at all.

Such an error in perception which has no basis in a real sensory stimulus is called

'hallucination'. While illusion is wrong perception, hallucination is false perception.
If at night we see a ghost when there is practically no stimulus in the form of a human figure
or anything resembling it would be an example of hallucination

15. INSTINCTS AND EMOTIONS

Instinct

Instinct is the inherent inclination of a living organism toward a particular behavior. The fixed action patterns are unlearned and inherited. The stimuli can be variable due to imprinting in a sensitive period or also genetically fixed. Examples of instinctual fixed action patterns can be observed in the behavior of animals, which perform various activities (sometimes complex) that are not based upon prior experience, such as reproduction, and feeding among insects. Sea turtles, hatched on a beach, automatically move toward the ocean, and honeybees communicate by dance the direction of a food source, all without formal instruction.   Other examples include animal fighting, animal courtship behavior, internal escape functions, and building of nests. Another term for the same concept is innate behavior. Instinctual actions - in contrast to actions based on learning which are served by memory and which provide individually stored successful reactions built upon experience - have no learning curve, they are hard-wired and ready to use without learning. Some instinctual behaviors depend on maturational processes to appear.

Biological predispositions are innate biologically vectored behaviors that can be easily learned. For example in one hour a baby colt can learn to stand, walk, glide, skip, hop and run. Learning is required to fine tune the neurological wiring reflex like behavior. True reflexes can be distinguished from instincts by their seat in the nervous system; reflexes are controlled by spinal or other peripheral ganglia, but instincts are the province of the brain.

Some   sociobiologists and ethologists have   attempted   to comprehend human and animal social behavior in terms of instincts. Psychoanalysts have stated that instinct refers to human motivational forces (such as sex and aggression), sometimes represented as life instinct and death instinct. This use of the term motivational forces has mainly been replaced by the terminstinctual drives.

Instincts in humans can also be seen in what are called instinctive reflexes. Reflexes, such as the Babinski Reflex (fanning of the toes when the foot is stroked), are seen in babies and are indicative of stages of development. These reflexes can truly be considered instinctive because they are generally free of environmental influences or conditioning.

Additional   human   traits   that   have   been   looked   at   as   instincts are: sleeping, altruism, disgust, face perception, language acquisitions, "fight or flight" and "subjugate or be subjugated". Some experiments in human and primate societies have also

come to the conclusion that a sense of fairness could be considered instinctual, with humans and apes willing to harm their own interests in protesting unfair treatment of self or others.

Many scientists consider that it is instinctual in children to put everything in their mouths, because this is how they tell their immune system about the environment and the surroundings, what the immune system should adapt to.

Other sociologists argue that humans have no instincts, defining them as a "complex pattern of behavior present in every specimen of a particular species, that is innate, and that cannot be overridden." Said sociologists argue that drives such as sex and hunger cannot be considered instincts, as they can be overridden. This definitory argument is present in many introductory sociology and biology textbooks, but is still hotly debated.

Psychologist Abraham Maslow argued that humans no longer have instincts because we have the ability to override them in certain situations. He felt that what is called instinct is often imprecisely defined, and really amounts to strong drives. For Maslow, an instinct is something which cannot be overridden, and therefore while it may have applied to humans in the past it no longer does.

Emotions

We experience in our life various feelings of anger, fear, disgust, repulsion, etc. Emotions largely determine human behaviour and extension workers should learn how to utilize them for the purpose of education of rural people.

Definition for emotions are:

Jersild: Emotions denote a state of being moved stirred up or aroused in some way. Emotions involve feelings, impulses and physical and physiological reactions. These feelings, impulses, physiological reaction etc., occur in an almost unlimited variety of mixtures and gradations.

Rass: Emotions are modes of being conscious in which the feeling element is predominant.

Munn: Emotions are acute disturbances of the individual as a whole, psychological in origin, involving behaviour, conscious experiences and verbal functioning.

Gerow: Emotion is a reaction involving subjective feelings, physiological response, cognitive interpretation and behavioural expression.

Classification of Emotion

There are number of ways to classify emotional responses and each has its own supporters. Wilhelm Wumdt organized emotions on three interesting dimensions; pleasantness/unpleasantness, relaxation/tension, and clam/ excitement.

Carroll Iyard's classification has nine primary emotions. They are fear, anger, shame, contempt, curiosity, acceptance and joy.

Development of emotion

Automatic nervous system (ANS) serves the smooth muscles, glands, and internal visceral organs. Parasympathetic division of ANS functions to maintain a clam, relaxed state of the organism. Sympathetic division of the ANS is involved in emotional status. Epinephrine (adrenalin) a hormone produced by the adrenal glands are involved in emotional activity, mostly affecting heart activity. Note pinephrine, a hormone secreted by adrenal glands are involved in emotional arousal. Adrenal glands located on the kidneys, part of the ANS, is involved in emotional reactions. Limbic system, a set of small structures located low in the brain is involved in motivational and emotional states. These are the physical bases for emotion. These emotions are expressed in facial states. These are the physiological bases for emotion. These emotions are expressed in facial and other expressions. Emotions when controlled effectively help the extension working to achieve their goals of educating the farmers.

16. MOTIVATION

Motivation is the process of initiating a conscious and purposeful action. Motive means an urge, or combination of urge to include conscious or purposeful action. It is goal directed.

Definition

- The goal directed, need satisfying behaviour is called motivation.

- It is a process of initiating a conscious and purposeful action.

- Motive means an urge or combination of urges to induce conscious or purposeful action.

- Motives, arising out of natural urges or acquired interests, or dynamic forces that affect thoughts, emotions and behaviour. Eg. Motive for a murder.

Which Needs Motivate Human Beings

i) Organic needs or physiological motives

Man is constructed in such a way that he requires certain things in order that he may keep living. He is also so constituted that these needs initiate activity that will eventually satisfy them. These are all basic organic needs which demand periodic or continued satisfaction. These needs are called appetites. (Eg.) breathing air, appetite of thirst, appetite for sleep or rest etc.

ii) Wants

People have unique personal wants.

(eg) Likes and dislikes for specific food; play etc.

iii) Emotions as motives

Under the influence of fear, anger etc., people may do many things that they would not do normally. (eg) Parents use fear to direct the behaviour of children. Organizations use fear to produce a desired form of behaviour.

iv) Feelings and attitudes as motives

An individual's experience activity is evaluated by him as pleasant or unpleasant. When the experience is pleasant, individual has an attitude of approach to that experience and if it is unpleasant, his attitude is withdrawn.

v) Social motives

Most people have a strong desire to achieve social approval. For this, they try to improve their personality through clothes, possession of things, knowledge, skills etc.

vi) Others

Habit: Somebody's settled practice, especially something that cannot easily be given up.

Established habit becomes almost automatic and requires only a stimuli to set it in action.

Objective environment: People act differently in different situations. The objective environment produces a 'set' or 'readiness' to respond in a particular way.

Functions of motivation

i) Motives encourage a learner in his learning activities

(Eg.) Extrinsic motives like prizes, medals etc. motivate

ii) Motives act as selectors of the type of activity in which the person desires to engage.

(Eg.) Selection of courses

iii) Motives direct and regulate behaviour.

(Eg.) Discipline in schools etc

Significance of motivation

Motivation is concerned with the arousal of interest in learning. This forms the basis for learning. So, the teacher has to find the right type of stimuli in the individuals that will produce satisfaction in order that the interest of the learner shall be maintained long enough to master definite ideas or subject matter.

Value aspects of motivations

a) Intrinsic values: These are what a learner does for the same of engaging in the activity itself. This is to be desired in learning and is more immediate.

b) Extrinsic values: These are when an incentive or goal is artificially introduced into a situation to cause it to accelerate activity.

Technique of motivation

1) Need based approach

The approach should be need based so that it could satisfy five categories of need by knowing the levels of motivation and patterns of motivation among them. The five categories of needs are i) physiological need, ii) desire for security, iii) desire for recognition, iv) desire for new experiences and v) organic needs.

2) Training to set a realistic level of aspirations

Any attempt to revise the expectations of farmer's should be done with full understanding of their socio-economic status.

(Eg.) (i) Creating an aspiration in the farmer who doesn't have any land of his own for possession of one or two acres.

(ii) A person who attains 30 tonnes/acre of yield could be made to aspire for 40 tonnes/acre. Such a realistic level of aspiration would ensure slow and steady progress.

3) Participation

The involvement of farmers in the programmes of agricultural change acts as booster of motivation not only for the immediate participants but also for others.

4) Use of audio visuals

The proper selection, combination and use of various audio visuals for the appropriate purpose will act as lubricants of motivation.

Importance of motivation in Extension

1. For mobilizing the villagers and extension workers.
2. Knowledge of biological drive/need helps the extension worker to realize the problems of the people. It helps in sympathetic handling.
3. Knowledge of psychological and social drives helps the extension worker to formulate programmes and make effective approaches in changing their attitude.
4. Knowledge of the motivating forces help avoiding conflicts or tensions

Need is what one desires. It is lack of something. Need is the difference between "what is" and what "ought to be".

Classification of Needs

1. **The desire for security:** Economic, social, psychological and spiritual security. Man wants protection for his physical being food, clothing and shelter. It may also mean an adequate reserve of wealth to secure more material things in the future. The wish for security may also be satisfied by spiritual beliefs. In fact, in history whole cultures have put emphasis on security. The great wall of China, the Maginet Line, the Tower of Babel, the innumerable forts and fortresses in several countries are striking examples.

2. **The desire for affection or response:** Companionship gregariousness, and social mindedness, the need for a feeling of belonging.

3. **The desire for recognition: S**tatus, prestige, achievement and being looked upto. Each individual feels the need to be considered important by his fellowmen.

4. **The desire for new experience:** Adventure, new interests, new ideas, new friends and new ways of doing things. Some people primarily want the thrill of something new, something different.

5. **Organic needs:** Organic needs like sex, hunger and thirstiness are also very important for human beings.

The above five categories represent all the powerful motivating forces stated in general.

Importance of Motivation in Extension

Motivation is necessary for mobilizing the village people. Most of the development programmes could not bring the desired results because there was no motivation. Both the extension workers and rural people are to be motivated to achieve the results.

Motivation brings need based approach. It is possible for the extension workers to motivate the people to satisfy the five categories of needs. If there is desire for security, the farmers can be motivated to adopt new practices by convincing them that the new practice will increase their income and enhance their security. If they have a desire for new experience, the extension teaching is oriented towards impairing new skills. Similarly other desires can be met with.

Motivation helps for the better involvement of farmers in development programmes.

The role of audio-visuals in motivating farmers needs no emphasis. The proper selection, combination and use of various audio-visuals for the appropriate purpose will act as lubricants for motivation.

Various studies conducted in India indicate that economic motivation is much predominant followed by innovativeness. Among the economic motives also providing better food, clothing and educating for one's children seem to be the dominant movies.

17. MEMORY

In psychology, memory is an organism's ability to store, retain, and recall information. Traditional studies of memory began in the fields of philosophy, including techniques of artificially enhancing the memory. The late nineteenth and early twentieth century put memory within the paradigms of cognitive psychology. In recent decades, it has become one of the principal pillars of a branch of science called cognitive neuroscience, an interdisciplinary link between cognitive psychology and neuroscience.

Sensory memory

Sensory memory corresponds approximately to the initial 200 - 500 milliseconds after an item is perceived. The ability to look at an item, and remember what it looked like with just a second of observation, or memorization, is an example of sensory memory. With very short presentations, participants often report that they seem to "see" more than they can actually report. The first experiments exploring this form of sensory memory were conducted by George Sperling (1960) using the "partial report paradigm." Subjects were presented with a grid of 12 letters, arranged into three rows of 4. After a brief presentation, subjects were then played either a high, medium or low tone, cuing them which of the rows to report. Based on these partial report experiments, Sperling was able to show that the capacity of sensory memory was approximately 12 items, but that it degraded very quickly (within a few hundred milliseconds). Because this form of memory degrades so quickly, participants would see the display, but be unable to report all of the items (12 in the "whole report" procedure) before they decayed. This type of memory cannot be prolonged via rehearsal.

Short-term

Short-term memory allows recall for a period of several seconds to a minute without rehearsal. Its capacity is also very limited: George A. Miller (1956), when working at Bell Laboratories, conducted experiments showing that the store of short term memory was 7±2 items (the title of his famous paper, "The magical number 7±2"). Modern estimates of the capacity of short-term memory are lower, typically on the order of 4-5 items, and we know that memory capacity can be increased through a process called chunking. For example, in recalling a 10-digit telephone number, a person could chunk the digits into three groups: first, the area code (such as 215), then a three-digit chunk (123) and lastly a four-digit chunk (4567). This method of remembering telephone numbers is far more effective than attempting to remember a string of 10 digits; this is because we are able to chunk the information into meaningful groups of letters. Herbert Simon showed that the ideal size for chunking letters

and numbers, meaningful or not, was three. This may be reflected in some countries in the tendency to remember telephone numbers as several chunks of three numbers with the final four-number groups, generally broken down into two groups of two.

Short-term memory is believed to rely mostly on an acoustic code for storing information, and to a lesser extent a visual code. Conrad (1964) found that test subjects had more difficulty recalling collections of words that were acoustically similar (e.g. dog, hog, fog, bog, log).

Long-term

The storage in sensory memory and short-term memory generally have a strictly limited capacity and duration, which means that information is available only for a certain period of time, but is not retained indefinitely. By contrast, long-term memory can store much larger quantities of information for potentially unlimited duration (sometimes a whole life span). The capacity can also approach infinity (unlimited). For example, given a random seven-digit number, we may remember it for only a few seconds before forgetting, suggesting it was stored in our short-term memory. On the other hand, we can remember telephone numbers for many years through repetition; this information is said to be stored in long-term memory. While short-term memory encodes information acoustically, long-term memory encodes it semantically: Baddeley (1966) discovered that after 20 minutes, test subjects had the most difficulty recalling a collection of words that had similar meanings (e.g. big, large, great, huge).

18. FORGETTING

Forgetting (retention loss) refers to apparent loss of information already encoded and stored in an individual's long term memory. It is a spontaneous or gradual process in which old memories are unable to be recalled from memory storage. It is subject to delicately balanced optimization that ensures that relevant memories are recalled. Forgetting can be reduced by repetition and/or more elaborate cognitive processing of information. Reviewing information in ways that involve active retrieval seems to slow the rate of forgetting.

Forgetting functions (amount remembered as a function of time since an event was first experienced) have been extensively analyzed. The most recent evidence suggests that a power function provides the closest mathematical fit to the forgetting function.

Theories of forgetting

The four main theories of forgetting apparent in the study of psychology as follows;

Cue-dependent forgetting

Cue-dependent forgetting (also, context-dependent forgetting) or retrieval failure, is the failure to recall a memory due to missing stimuli or cues that were present at the time the memory was encoded. It is one of five cognitive psychology theories of forgetting. It states that a memory is sometimes temporarily forgotten purely because it cannot be retrieved, but the proper cue can bring it to mind. A good metaphor for this is searching for a book in a library without the reference number, title, author or even subject. The information still exists, but without these cues retrieval is unlikely. Furthermore, a good retrieval cue must be consistent with the original encoding of the information. If the sound of the word is emphasized during the encoding process, the cue that should be used should also put emphasis on the phonetic quality of the word. Information is available however, just not readily available without these cues.

Trace decay

Trace decay focuses on the problem of availability caused when memories decay. Hebb said that incoming information causes a pattern of neurons to create a neurological memory trace in the brain which would fade with time. Repeated firing causes a structural change in the synapses. Rehearsal of repeated firing maintains the memory in STM until a structural change is made.

Organic causes

Forgetting that occurs through physiological damage or dilapidation to the brain are referred to as organic causes of forgetting. These theories encompass the loss of information

already retained in long term memory or the inability to encode new information again. Examples include Alzheimer's, Amnesia, Dementia, consolidation theory and the gradual slowing down of the central nervous system due to aging.

Interference theories

Interference theory refers to the idea that forgetting occurs because the recall of certain items interferes with the recall of other items. In nature, the interfering items are said to originate from an over stimulating environment. Interference theory exists in three branches, Proactive, Retroactive and Output. Retroactive and Proactive inhibition each referring in contrast to the other. Retroactive interference is when new information (memories) interferes with older information. On the other hand, proactive interference is when old information interferes with the retrieval of new information.[1] Output Interference occurs when the initial act of recalling specific information interferes with the retrieval of the original information.

Decay theory

Decay theory states that when something new is learned, a neurochemical, physical "memory trace" is formed in the brain and over time this trace tends to disintegrate, unless it is occasionally used.

Definitions and Controversy

Forgetting can have very different causes than simply removal of stored content. Forgetting can mean access problems, availability problems, or can have other reasons such as amnesia caused by an accident.

A debatable yet popular concept is "trace decay", which can occur in both short and long-term memory. This theory, applicable mostly to short-term memory, is supposedly contradicted by the fact that one is able to ride a bike even after not having done so for decades. "Flashbulb memories" are another piece of seemingly contradicting evidence. It is believed that certain memories "trace decay" while others don't. Sleep is believed to play a key role in halting trace decay, although the exact mechanism of this is unknown.

19. TEACHING - LEARNING PROCESS

Teaching-learning is a continuous process consisting of various steps. It is difficult to separate steps from one another. According to Wilson and Gallup the following are the steps in teaching-learning process (AIDCAS).

- **A**ttention
- **I**nterest
- **D**esire
- **C**onviction
- **A**ction
- **S**atisfaction

Attention

The first task of the extension worker is to attract attention of the learners to the new and better ideas. Farmers are to be made aware of the improvement.

Interest

Once attention has been captured it becomes possible for the teacher to appeal to the basic needs or urges of the individual and arouse his interest in further consideration of the idea. Extension worker reveals how new practice will contribute to the farmer's welfare. The message should be presented attractively.

Desire

The desire is concerned with continuing farmer's interest in the idea or better practice until interest becomes a desire or motivating force. The extension worker explains the farmer that the information applies directly to the farmer's situation and doing of this would satisfy his needs.

Conviction

Action follows desire, conviction of the people, and prospects of satisfaction. In this step, the learner knows what action is necessary, and just how to take that action. He also makes sure that the learner visualizes the action in terms of his own peculiar situation and has acquired confidence in his own ability to do things.

Action

Unless conviction is converted into action the efforts are fruitless. It is the job of the extension worker to make it easy for the farmers to act. If new control measure is action oriented, the recommended chemical should be available within the farmers reach. Necessary equipments should also be available. If action does not quickly follow the desire the new idea

will fade away. Therefore this phase should never be neglected.

Satisfaction

This is the end product of the process. Follow-up by the extension worker helps the farmers to learn to evaluate their progress and strengths. Satisfaction helps to continue his action with increased satisfaction. Satisfaction is the motivating force for further learning. "A satisfied customer is the best advertisement" will also apply to the extension worker.

The above six steps are often blended with each other and lose their clear cut identity. Of course these steps are based on motivation.

Principles of teaching

i. The learner should subscribe to and understand the purpose of the course.

ii. The student should have desire to learn.

iii. The teacher should keep friendly and informal relationship with learner.

iv. The physical condition should be favorable and appropriate to the learning situation.

v. The teacher should involve the learners so that they participate and accept

vi. responsibility for the learning process.

vii. The teacher should make use of the learner's experiences.

viii. The teacher should prepare ahead of the c1ass, keep his teaching aids handy and should be enthusiastic about teaching it.

ix. The method of instruction should be varied and appropriate.

x. The teacher should update his notes with the availability of new knowledge on the topic of subject.

Learning

Learning is the process by which a person becomes changed in his behaviour through self-activity.

"Learning is the process of progressive behaviour adaptation".

Amplification

1. Learning is something that takes place within the learner.

2. It takes place within the individual when he feels a need, strives for fulfilling it, and experiences satisfaction with the fruits of his labour.

3. Learning is the goal of teaching.

We must however avoid any artificial separation, since teaching and learning are really one process; they are so as to say, two sides of the same coin.

Learning Experience

Definition

It is mental and/or physical reaction one makes through seeing, hearing or doing things to be learned, through which one gains meanings and understandings of the material to be learned.

Learning is an active process on the part of the learner. Hence, learning experience is not attained by mere physical presence in a learning situation, it is what the participant does (i.e. his reaction) in the learning situation. He must give undivided attention to the instructor and deep-through for getting the facts, understanding their meaning, and to see their application to his needs and problems. Effective learning experiences therefore, can be best gained in effective learning situations provided a skillful instructor who knows what he wants, who has the material to accomplish his goals and the skills to use them effectively.

Learning Situation

Definition

Learning is a coordination of environment in which all the elements necessary for promoting learning are present; namely (1) Instructor (2) Learner (3) Subject matter (4) Teaching materials and equipments and (5) Physical facilities.

Figure below is a symbolic representation of the reaction, the learner makes to the other elements and the way these five elements react to each other.
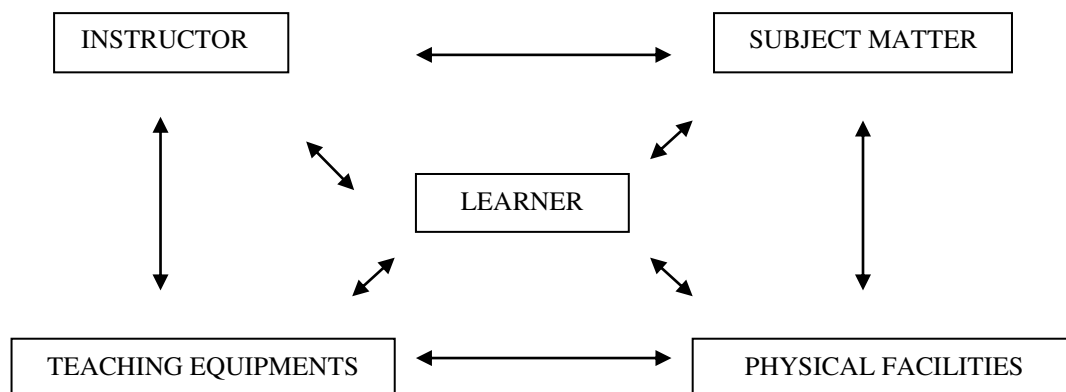
To have an effective learning situation, these five major elements should satisfy the following condition.

1. Instructor should

a) Have clear objective.

b) Know the subject matter and have it well organized.

c) Be enthusiastic and interested in the subject.

d) Be able to communicate with learners.

e) Be democratic in his leadership.

f) Allow student's participation, ask for it.

g) Be prepared, be prompt, be friendly, and be courteous.

h) Use a teaching plan.

i) Speak, so that all can hear.

j) Set a good example of a good leader and teacher.

k) Be skilled in the use of teaching materials and equipments.

2. Learning should

a) Have need for information

b) Be interested

c) Be capable for learning

d) Use of information gained

3. Subject matter or content

a) Pertinent to learner's needs

b) Applicable to real life situations

c) Taught at intellectual level of learners

d) Well organized and logically presented

e) Presented clearly

f) Challenging, satisfying and significant to the learners

g) Fits into overall objectives

4. Physical Facilities

a) Free from outside distractions

b) Temperature as comfortable as possible

c) Well lighted

d) Adequate space for the group

e) Furniture comfortable and well-arranged

5. Teaching equipment

a) Meet the needs effectively.

b) Readily available.

c) Each item used skillfully.

The nature of each of these elements, their relationship to each other, their role in the educational process must be thoroughly understood by the instructor and skill developed by him in handling them. Effective learning situations are created through the skillful use of appropriate teaching methods and techniques.

20. LEARNING PROCESS

Learning is the process of modifying our activity through experience. This is a process that is continuously going on in all human being and animals. By learning we increase our knowledge of the external world.

Learning is the process by which the individual acquires various knowledge and attitudes that are necessary to meet the demands of life in general. Learning is defined as the process of effecting changes in the individual behaviour and making such changes permanent.

Important Points Regarding the Process of Learning

Learning means modifying or changing one's behaviour with reference to achieving a particular goal. Learning means the development of a method for dealing with problems.

Conditioned Learning (Classical conditioning)

The principle of conditioning was first noticed by the Russian Psychologist Petrovitch Pavlov. Conditioning represents learning at a very simple level. According to some people conditioning is the only principle by which all human or animal learning takes place.

Pavlovs' Experiment on Conditioning

Pavlov was conducting some experiments with dogs studying the digestive process. During these experiments a servant was responsible for feeding the dog. The sight of food or the placing of food will always cause the flow of saliva in a dog. Food is the natural stimulus of the salivary reflex. Pavlov one day noticed that even before the food arrived, the mere sound of the footsteps of the servant caused the dog to salivate.

Pavlov demonstrated that the dog can be made to salivate to any stimulus, such as the ringing of a bell. Salivating is a reflex action. It is innate and is determined by natural and unlearned connection with some particular relevant stimuli. Here contact with the food is the natural stimulus. If you ring a bell before a dog, it may bark and get angry just disregard the sound, it will not salivate. There is no natural connection between the sound of a bell and the salivary reflex.

Pavlov demonstrated that if you ring a bell repeatedly for a few times and each time feed the dog, then it will begin to salivate even when the bell is rung and no food is brought. Thus, the process of conditioning simply means the establishment of a connection between response and a stimulus which has no natural connection with it. Pavlov conducted his experiments with the flow of saliva which is a reflex action, he called the response of the dog to the bell the **"conditioned reflex".**

The natural stimulus is technically called the 'unconditioned stimulus' (US) the response to the natural stimulus is called the 'unconditioned response' (UR) the strange experimental stimulus to which the response is conditioned is called the conditioned stimulus (CS) and the response after it has been conditioned to the strange stimulus is called the 'conditioned response' (CR).

Pavlov's conditioning experiments are also called a **"Classical conditioning".**

Instrumental Conditioning

Instrumental conditioning was first given by **Bechterev's'** conditioning experiments developed as the 'Instrumental conditioning'. In this instrumental conditioning, the US was the electric chock, the CS was a bell, the response was lifting the foot. The subjects learned to lift the foot at the sound of the bell. In Pavlovs' experiments to get the reward viz., food which is the reinforcing stimulus to the dog, did-not have anything to do with. It played only a passive role. Its response of salivating was a glandular reflex.

As different from this in the instrumental conditioning, **Bechterev** insisted the subjects to do something or learn something as avoidance or as positive approach. Because of the activity of the subject being instrumental to effect the final response, this type of experiments came to be called instrumental conditioning.

Learning all sorts of mazes, avoiding various kinds of punishments, learning specific activities leading to reward such as food or escape have all been experimented upon by this technique of instrumental conditioning.

Learning all sorts of mazes, avoiding various kinds of punishments, learning specific activities leading to reward such as food or escape have all been experimented upon by this technique of instrumental conditioning.

Maze learning

Most popular kind of learning experiments has been done with mazes. A maze is essentially a series of alloys some leading to the goal and others leading into dead ends. From the starting place to the goal, the subject meets a number of points where he must choose one or two alternatives.

For rats, the partitions are built in the form of walls over which they cannot climb. For human subjects, the maze pattern may be in the form of groves of slots in fiber board in which a pencil of stylus is moved. It may be in the form of ridged raised on the surfaces of a board to be followed by the finger tip. In order to make the human problem more comparable with that of rat, the subject may be blind folded in using slot maze. The maze patterns can be made identical for both rat and man and their modes of learning can then be compared in this

matter.

Experiment

One of the most common experiments in animal learning is maze learning by white rats. The general plan of the experiment is to see the number of trials taken by a rat to learn the maze successfully, i.e. to run without committing any mistake and in the shortest possible time. A turn towards a blind alloy is conducted as an error.

When the hungry rat is placed in the maze, it cannot see its way to the food. Therefore, the first reaction is the rat gets active and begins to explore. The beginning activity will not take any organized form. It moves here and there. It may enter almost all the passages including those leading to blind alloys, and finally succeeded in reaching the food. The rat is caught as soon as it reaches the food and after allowing it to have bite is again placed at the start. Like this, several trials may be allowed per day. In later trials the rat does not go into all the blind alleys and even if it takes a wrong turn it does not go very deep into the blind alley. Finally, after a number of trials spread over a few days, it learns to avoid all wrong entrances and go direct and quickly to the food.

Perceptional Learning: (Insight learning)

The factor of perception in learning was emphasized by World Gong Kohler. He has conducted a large number of experiments with chimpanzees to study the problems of learning with particular references to the factor of perception.

Experiment

In one experiment Kohler put the chimpanzee, by name Sultan, inside a cage and a banana was kept outside. Inside the cage two sticks were placed, one longer and one shorter. One was hallow at one end so that the other stick could be thrust into it to form one long stick. The banana was so placed that neither of these two sticks could be reached. When the experiment started, the chimpanzee got active. It tried various means of reaching the banana. It tried in vain with the two sticks one after another.

In one trial Kohler noticed that after some unsuccessful attempts the monkey give up the problem just sat down in a corner and was playing with these two sticks. While playing like this accidentally one stick fell into the hole of the other but not properly. This gave the animal a 'bright idea'. The animal straight away joined the will ling enough to reach. The two sticks were joined and got the banana. Kohler emphasizes the suddenness with which the right solution appeared. This sudden and new way of looking at the problem and solving it is

called 'insight'.

Trial and Error Learning

Motor learning is most affected through the method of Trial and Error

Thorndike's Experiment

Inside a specially constructed cage called the 'problem box' or 'puzzle box', a hungry cat is kept. A piece of fish is kept outside the box. The cat is kept hungry and the fish is kept outside to make sure that the cat would be sufficiently motivated to go into action. The box is build in such a way that its door can be opened by pressing an inside lever. Cat becomes restless and made all kinds of attempts to get out, like clawing and biting at all the bars and shaking all the movable parts and error methods. After some time by chance, the cat presses the lever and opens the door. It is again taken and put into the box for a second attempt and during the second attempt also the cat goes on with the restless and random activity as before.

In the same manner the experiment is continued for several attempts. Thorndike noticed, as the number of trials increased, unnecessary and irrelevant activities of the animal were getting reduced. Gradually, the errors became less till a last after number of trials the animal learned to operate the door straight away. The result of this experiment emphasized; (1) the random activity, (2) the gradual reduction of useless movements, (3) the fact that the animal finally learned the trick. These findings made Thorndike to conclude that animals learn only by trial and error.

Acquisition of skills

When we acquire through learning a co-ordinated series of responses which are performed with proficiency, that is called skill, playing the piano, piloting a plane and reciting a poem are all skills.

Transfer of Training

One of the problems in psychology that has been experimentally studued is the possibility of the skill attained in learning one task, helping the learning of another task. Mastering one skill may make it easier to learn another. One influences the other. This influence may be of two kinds. It may be positive in that the first learning process facilitates the second one. It may negative, in as much as one learning activity may interfere with subsequent learning activity and retard the progress of the later. The negative transfer is commonly called 'habit interference'.

Williams James and Thorndike have conducted many experiments on this subject. A number of experiments with mazes, puzzles, verbal material etc., have been conducted to study the problem of transfer of training in general and obtaining in learning more

complicated skills. Many experiments have shown that what is actually transferred is the technique of dealing with the problem; it is actually an application of a principle already learned to new situations.

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