

## Unit I

### THE NATURE, ROLE AND METHODS OF PSYCHOLOGY IN EDUCATION

<u>THE NATURE, ROLE AND METHODS OF PSYCHOLOGY IN EDUCATION</u>
Meaning of Psychology
Nature of Psychology
Scope of Psychology
Branches of Psychology
Methods of Study: Introspection
Methods of Study: Observation
Methods of Study: Experimental study
Methods of Study: Case Study
Utility of Educational Psychology to the teachers

#### Branches of psychology

1. General psychology
2. Animal Psychology
3. Physiological Psychology
4. Abnormal Psychology
5. Child Psychology
6. Individual Psychology
7. Social Psychology
8. Experimental Psychology
9. Industrial Psychology
10. Legal Psychology
11. Commercial Psychology
12. Military Psychology
13. Educational Psychology

#### Definition of Educational Psychology

Educational Psychology describes and explains the learning experiences of an individual from birth through old age.

- Crow and Crow

Educational Psychology is the science which explains the changes that take place in the individuals as they pass through the various stages of development.

- Judd

Educational Psychology is the study of those facts and principles of psychology, which help to explain and improve the process of education.

- Kolesnik, Walter B

#### Scope of Educational Psychology

Scope of Educational Psychology deals with the main areas of subject matter. It not only proposes its extent of study but also indirectly puts the limitations on the subject. The factors in focus in the field of Educational Psychology are:

1. The learner
2. The learning experiences
3. The learning environment
4. The learning process
5. The teacher

## Methods of psychology and Educational Psychology

All the methods of Educational Psychology are basically the methods of general psychology. Data about human activity and behaviour are collected, analysed, and categorized in terms of qualitative and quantitative characteristics. To collect the data, the following methods are used:

1. Introspection
2. Observation
3. Experimentation
4. Case study method

### Introspection Method

'Intro' means inward, 'spection' means looking. Looking into oneself or observing oneself to know what he is and how he is in his thoughts, feelings and actions is introspection.

### Advantages

1. He can understand what he is if he looks at himself as he is or he was. He can be scientific or objective in knowing as he is.
2. He can introspect whenever it is convenient, necessary and use it to analyse and set right himself.
3. This method does not require specific time, place and equipment, as in experimentation.

### Disadvantages

1. Introspecting person may be partial. Hence this data may be unreliable.
2. Children and abnormal people can't introspect.
3. During introspection the mind is divided between the state of mental experience and seeing as the observer and the observed are the same person.

### Observation Method

This is the universal method, commonly and widely used to study others behaviour in the light of understanding one's own self. It is defined as 'measurement without instruments.' The method involves.

1. Objective observation of the behaviour of individuals under study. The observer has to be specific about what to observe.
2. He has to note the behaviour patterns being observed in a scientific manner. He can depend on his memory or note them or take a film if he is not to miss any part of behaviour.
3. Analysis and interpretation of behaviour: the data noted is analysed objectively to interpret the behaviour patterns.

### Advantages

1. The scope of observational method is wide.
2. It is possible to study the behaviour of all organisms in natural situations.
3. It is very useful in the study of children, and animals, etc.

### Limitations

1. Lack of natural behaviour
2. Observer bias
3. Children mislead with their physical activities and expressions resulting from restlessness.

### Experimental Method

An experiment is a controlled observation. It is rigorous and is based on identification and control of variables. 'In the experimental method the distinguishing operation is the manipulation of some specific stimulating conditions, the independent variable by the experimenter' says Watson.

In an experiment four sets of operations - controlling, manipulating, measuring and observing the variables are carried out.

1. Controlling the variables: the experimenter controls to cancel out or neutralize any effect of some (other than independent variable or cause) factors, which might otherwise affect the observed phenomena. These variables are called intervening variables.
2. Manipulating the variable: Independent variable is a stimulus or input variable. It operates within a person or within his or her environment to affect behaviour. experimenter selects, manipulates and measures to determine its relationship to an observed phenomenon.
3. Dependent variable: Called a response or output variable. It is an observed aspect of the behaviour of an organism that has been stimulated.

### Steps in the experimental method

- ❑ Statement of the problem.
- ❑ Formulation of a hypothesis.
- ❑ Determining the dependent and independent variables involved in the experiment.
- ❑ Creating a controlled situation for the experiment with the help of certain instruments or other devices.
- ❑ Analysis of the data
- ❑ Testing the hypotheses on the basis of results obtained from the experiment.

### Advantages

1. It is the most systematic method of getting reliable data.
2. The findings are verifiable by other experimenters under similar conditions.
3. It disproves subjective opinions authentically and proves objectively the facts or realities.
4. It predicts the future relationships under identical conditions.

### Limitations

1. Experiments conducted on other animals are generalized to apply the same principles and laws to human beings, which is not fully justifiable.
2. Dynamic nature of human being is unpredictable even on experimentation.
3. Behaviour is studied in controlled or artificial conditions which may be different in natural environment.

### Case Study Method

It is directed to study an individual behaviour or a single unit. It is used to study either gifted or backward or problem child or a school with 'O' or very low per cent pass or 100% first class or an organisation which is well known either for its excellence or utter failure. Mostly it is used to deal with problem cases.

1. To identify or diagnose the problem by enquiring about the various conditions in which the case is, his reactions and understanding. It studies home conditions like social, economic, educational and health status of parents and family members, school

environment involving teacher, subject matter academic and co-curricular activities and child's intelligence, aptitudes, personality traits and interests are also studied.

Determinants of behaviour
Mechanism of heredity, Twins etc
Influence of heredity
Influence of Environment
Individual Difference of heredity and environment

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ing the behaviour is the necessary step in understanding the problem in depth. It can be done in two ways:

- a) Modifying the environmental focus and socio-cultural environment at home or elsewhere.
- b) Modifying the individuals attitude or approach to the situation either at home or school in academic or social environment.

#### Advantages

1. An indepth study of an individual's specific behaviour or behaviors can be studied.
2. Case Study is an intensive investigation. No method can match this in its efficiency and usefulness in dealing with behavioral problems.

#### Limitations

1. Mature and technically proficient persons have ot handle the cases.
2. A lot of effort has to be put in.
3. These studies can't be generalized.

#### Utility / Significance of Educational Psychology to teachers

1. To be self-knowing
2. Deal with one's problems
3. Understand individual differences and common nature
4. To plan the activities of the school
5. To provide learning environment
6. To plan learning programmes in schools
7. To fulfill the goals of education
8. To develop right relationship with learners
9. To frame curriculum
10. To use learner's group behaviour
11. To make for the maximum use of learners potential
12. In teaching and learning situation
13. To discipline
14. Need for evaluation of the learner
15. To evaluate himself

### Unit II

### **DEVELOPMENT OF THE LEARNER**

#### **Determinants of behaviour**

Heredity and environment play the important role in shaping the behaviour of an individual.

## **Identical Twins**

When the first mitotic division of the fertilized ovum takes place, the two daughter cells develop into two separate individuals on further division. They are exactly alike with regard to chromosomal content. They would always be the same sex.

## **Fraternal twins or dizygotic twins**

Usually one ovum is ripe in human female at a particular time and it is fertilized by the sperm. Sometimes more than one ovum matures and each is fertilized by separate sperm. In such a cases more than one is born. But the particular chromosomal combination is not similar in all these fertilized cells.

The role of heredity in the development of children is extremely important especially for teachers. It is necessary to understand what heredity is and how it affects the development of a child.

## Definition of heredity

Heredity is the transmission of characteristics through the genes from the ancestors to the offspring.

## Laws of Heredity:

### *Like begets like*

A child looks like the parent. Fair complexioned parents have fair complexioned children. Bright children are the offspring of bright parents.

### *Law of variation*

Children vary from their parents due to variance in gene combinations. Short parents may have tall children. The genes that combined are dominant in tall characteristics.

### *Laws of regression*

Regression is a phenomenon. It is due to the tendency in the generation to be normal. It is 'the tendency for children of very bright parents to be less bright than their parents and of comparable tendency for the children of very inferior parents to be less inferior.

### *Law of dominance and segregation*

When a pure tall plant is bred to be purebred, the first generation of offspring F1 is tall hybrids. That is the gene for tallness is dominant in them, but the gene for smallness is also carried. If F1 generation are bred together, the second generation F2 with 25% pure tallness, 50% hybrid tallness and 25% pure dwarfness are the result. The 'dominant' and 'recessive' genes mixed in F1 generation and segregated in F2 generation.

## **Evidences in support of heredity:**

### **Goddard's study of kallikak family**

Martin Kallikak, with his intelligent wife gave rise to 496 descendants. All of them were very well placed in life. He also had a feeble-minded wife illegally and an illegitimate boy who had 480 descendants. A good number of them were feeble minded. Only 46 were normal, others were sexually immoral, confirmed alcoholics. 8 epileptics, criminals and keepers of houses of ill fame.

### Dugdale's study of the Juke family

A morbid couple had 709 individuals through five generations. Very few were good but a majority were criminals and vagabonds. Only 20 of them learnt any trade. 130 were convicted criminals and 7 were murderers.

### **Evidences in support of environment**

#### **Wolf bred children**

Two small girls Amala and Kamala were carried away by wolves and brought up. After a number of years, a missionary rescued them and brought them back into human environment. They displayed animal characteristics. They crawled swiftly or walked on four limbs, and teared food stuffs with nails and teeth in animal-fashion. It took several months to make Kamala behave like humans, wearing clothes. Amala, the younger one died very soon.

#### Wolf boy Ramu

A wolf picked up Ramu when he was very young and he was brought up among wolves. When he was brought back, he crawled, sounded like wolves and had the same food habits as wolves.

#### Individual Difference of heredity and environment

Heredity and environment plays an important role in growth and development of the child. Each individual varies in his behaviour and this is because of various reasons but governed by heredity and environment. Hence teacher has to be careful in guiding the students fully aware of the individual in all aspects.

1. A teacher has to understand the abilities of the individual and also appreciate the fact of individual differences.
2. Heredity limits in intelligence, and physical strength are to be understood and cared, for.
3. A teacher has to provide facilitative environment for the development of the potential transmitted through heredity.
4. He can't alter heredity but can alter the environment suitably to children in his class.

### **Unit III**

#### **Sensation and Perception**

<b><u>Sensation and perception</u></b>
Sensation and Perception
Attention & Factors Affecting Attention
<b><u>Imagination, And Thinking.</u></b>
<b><u>Reasoning and Concept formation</u></b>
Piaget theory of Cognitive Development

## Sensation

Sense organs are the gateway to human knowledge, as we get information about the external world, only through our sense organs. Seeing, hearing, smelling tasting and touching are sensory inputs we receive through our sense organs. It is the immediate result of a sense organ being acted upon by appropriate stimuli.

Visual / aural stimuli – eyes - seeing

Auditory stimuli – ears – hearing

Olfactory stimuli – nose – smelling

Gustatory stimuli – tongue – tasting

Tactile stimuli – skin – feeling of touch

## Perception

Perception is a psychological process in which the sensory inputs received from the sense organs are processed, organized and interpreted based on the past experiences of the organism so that the nature of the stimuli are meaningfully understood.

## **Perception = Sensation + Meaningful Interpretation**

### Determinants of Perception

Mental setup

Ongoing need

Subjective factors: interest, suggestion

Brain and nervous system

Past experience

Set or attitude

## Attention

### **Definition**

**Dumville** believes, Attention is the concentration of consciousness upon one object rather than upon another.

**Morgon and Gilliland** says, “Attention is being keenly alive to some specific factor in our environment. It is a preparatory adjustment for response.

**Ross** says, “Attention is the process of getting an object of thought clearly before the mind.

### **Span of Attention**

It refers to the number of independent, distinct or separate stimuli that can be attended to by an individual, at a glance viz. in a very brief period of time. In other words it denotes the number of objects that can exist in the focus at a time.

## Shifting of attention

One cannot continuously attend on any object for more than 10 seconds, as attention is characterized by fluctuation. It shifts from one object to another or one aspect of the object to another aspect. Shifting in attention is explained as due to sensory fatigue, brain fatigue, periodic muscle waves etc.

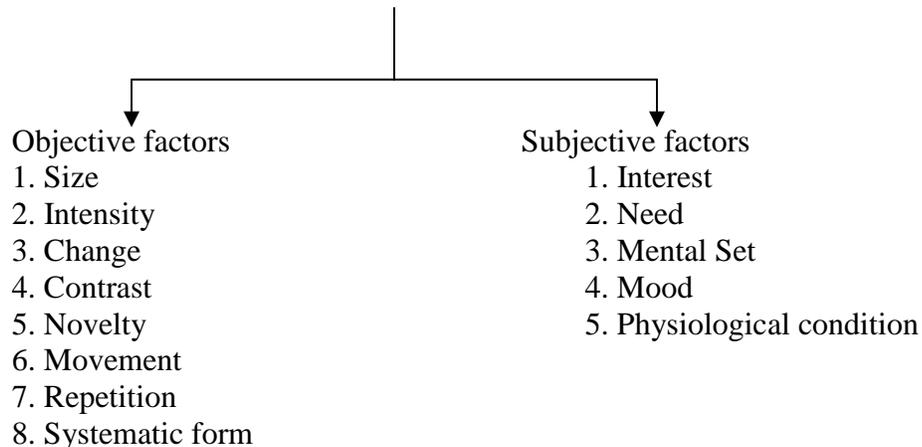
## Factors Affecting Attention

### Factors of Attention

Those factors which reside in the object attended to, are called *objective factors*. As these factors operate on the individual from outside, they are also known as 'external factors'. Psychology of advertising makes good use of these objective factors and the teacher also has to use them profitably in the classroom.

If factors that operate from within the individual then they are called as *subjective factors*. They are also called 'internal factors'.

Determinates of attention



## Imagination

If we think of an object which is not before our senses and make a picture of it in our mind, it is imagination. Imagination consists of picturing objects in their absence. It is a process of forming images. What we recall when we think of an object, a person, or a place, without it being present, to the sense is an image. Imagination is subjective while sensations are objective and individuals differ in their ability to recall.

### Development of imagination

Play stimulates most powerful imagination. Drawing, painting, drawing, cutting etc adds to developing imagination power among children. Additionally language, practical subjects, composition, poem or description, and story writing provide opportunities for creative imagination. Study of science provides opportunities for imagination like investigation, observing, framing hypothesis, testing conclusion etc.

### Types of imagination

Reproductive imagination

Productive imagination

Creative imagination

Receptive imagination

Pragmatic 1. theoretical 2. practical

Aesthetic 1. artistic 2. fantasy

Imagination differs from person to person as some have good visual images and some auditory and some motor.

#### Importance of imagination

- It guides our actions and helps to understand the results one's plans and policies.
- Sympathetic feelings of people are due to their imagination in place of others.
- It is a powerful source of enjoyment.

#### Dangers of imagination

- Excessive indulgence in imagination weakens character as it leads to fantasy which is nothing but self-deception.
- It is dangerous in times of difficulties.
- It intensifies depression as it increases worry.

### **Thinking**

Thinking is an activity of mind which prepares us to advance in a situation. Man's ability to think and deal with complex problems makes him superior to other animals. It includes flow of ideas which are directed towards some end or purpose. If we let our thoughts wander, without any definite end, it is wishful thinking, and daydreaming.

#### Definition

Valentine: Thinking.. consists essentially of a connected flow of ideas which are directed towards some end or purpose.

Ross: Thinking is mental activity in its cognitive aspect or mental activity with regard to psychological objects.

Mohsin: Thinking is an implicit problem-solving behaviour.

#### Steps in thinking process

Woodworth mentions the following steps

1. Orientation towards a goal
2. Seeking this way and that way for realizing the goal
3. Recall of previous observed facts
4. Grouping these recalled facts into new patterns
5. Inner speech movements and gestures

#### Elements in thinking

- Symbols (thinking fills in the gap between a stimulus and response; symbols are representations of our previous experience with the world)
- Imagery (we form images of situations and people)
- Concepts (mental constructs which enable us to make classifications)
- Language (essential for shaping our thoughts)

#### Types of thinking

- Convergent thinking
- Divergent thinking
- Egocentric (dreams, fantasy, attitudes, beliefs, prejudices)
- Objective (trial and error, scientific problem solving etc)

## **Reasoning**

Reasoning uses past experience to put in certain order which leads to some conclusions. It involves the process of passing from one or more judgments to another. It is a trial and error process at the initial stages. It is creative and reflective in higher stages, where there is no previous knowledge.

### Definition

**Garrett** says, “Reasoning is step-wise thinking with a purpose or goal in mind.”

**Gates** says, “It is the term applied to highly purposeful controlled selective thinking.”

### Types of reasoning

**Inductive reasoning:** aims at forming concepts, and principles from the observation of related experiences. The following steps are involved in it.

- Observation leads to enquiry
- Analysis of known body of facts or collected data through observation
- Formation of hypothesis
- Verification of hypothesis

### Deductive Reasoning

Applying general principles acquired through experiences to a particular problem. E.g. a doctor diagnoses the case of a patient with that of the symptoms of standard diseases like malaria, typhoid etc.

### Conditioned reasoning

Reasoning tied down by some specific conditions such as, if there is a solar eclipse, the street will be dark.

### Categorical reasoning

It based on some categorical statements like, ‘all robins are birds.’ ‘all birds lay eggs.’. therefore ‘all robins lay eggs.’

### Linear reasoning

It involves straight forward relationships among elements. E.g. if Bose is taller than Karthick, and Karthick is taller than Dinesh, Bose is the tallest.

## **Concept formation**

Concept refers to generalized images or ideas which stands for a group of objects that have some common characteristic. In other words it is the generalized idea which stands for all our experiences with regard to a particular object, person or event.

### Types of concepts

- Simple concept: single attribute/relations e.g. blue.
- Complex concept: more than one attribute e.g. bike
- Concept of objects: e.g. book, house
- Concept of aspects: 1. quality (e.g. honesty) 2. relations (e.g. greater than).
- Imaginary concepts

### How are concepts formed

There are two steps

1. Abstraction - observing and comparing
2. Generalization – the observed phenomena is unified and named.

They are constantly modified and updated when new reliable informations are received.

Example : child learns concept of fruits

Methods of learning concepts

- Discriminate learning
- Contextual learning
- Definition
- Classification

**Jean Piaget's theory of cognitive development** (swiss psychologist)

Stages of cognitive development

According to Piaget to know an object one must act upon it either physically or mentally and these activities that people perform on objects are called schemas.

Piaget speaks of four important stages of cognitive development:

Sensory Motor stage

This stage is mainly based on immediate experience through the 'senses' and the major intellectual activity is the sensory interaction of the environment. The child's activities are physical without language, to label experience. This stage is characterised by

- Development of sensory, motor and perceptual skills
- Coordination of motor activities
- At first out of sight is out of mind, but towards the close of the second year it learns object permanence.
- Development of rudimentary memory

During sensory motor stage the child develops practical intelligence like seeing, grasping, sucking etc. to deal with objects in the environment and cannot use symbolic operations.

Pre-operational stage

The thinking of pre-operational child is characterised by:

- Ego-centrism: use of words which have unique meaning for the child, which limits the child's ability to understand others; point of view
- Animism: treating inanimate objects as living ones; e.g. children bathing, dressing and feeding their dolls as if they are alive.
- Realism: dream are considered real. E.g. stuffed toys are considered real, have imaginary friends etc.
- Centering: The child can concentrate on only on aspect of a thing at a time.
- Due to centering they cannot understand that objects are conserved even if they change their positions or their shapes altered.
- Cannot understand reversibility
- Consider their parents are omnipresent and omnipotent.
- Inability to play any game following the rules.

Concrete operational stage

During this stage child starts to perform logical manipulations. He can perform mental representation of a series of acts. But this is only at the concrete level. He can think mentally only those objects which are perceivable in the real world. E.g. a 5 or 6 year old child cannot tell the way to the market but can lead you to the market as he walks.

- Transferability is known (if  $a=2b$  and  $a=2c$ , then  $b=c$ ) understands de-centering (think of more than one quality at a time)
- Can play any game according to rule.
- Evaluate crime in terms of magnitude and not in terms of motive.
- Think that their point of view alone is possible and real.
- Thinking is very rigid; do not understand relativistic ideas. E.g. they believe that morality will be the same in all cultures, at all places, for all the time.

#### Formal operational stage

During this stage thoughts become increasingly flexible and abstract. They are able to tackle any problem in a logical sequence. The following are the characteristics:

Start evaluating acts in terms of underlying motives.

- Understand that the rules of any games or social system are developed by man by mutual agreement and hence could be changed or modified.
- Start believing that there could be many points of view on any problem, even though he may not be knowing all
- Understand that nothing is absolute; everything is relative and hence search for the better alternative should be continuously tried to evolve the ideal one.

#### Educational implication

- Emphasis on discovery approach in learning
- Curriculum should provide specific educational experience based on children's developmental level.
- Arrange classroom activities so that they assist and encourage self-learning.
- Do not treat children as miniature adults
- Co-curricular activities have equal importance as that of curricular experiences in the cognitive development of children.
- Fruitless pushing beyond a child's cognitive stage as well as needless delays should be avoided.
- Moral and intellectual growth goes together and only after the age of 11 can the child evaluate actions in the light of motives.
- Activity approach at the primary classes and concrete methods of illustration (like use of aids, demonstrations etc.) at the middle school level and verbal method of teaching should be practiced only from high school classes.

## Unit IV

<b>GROWTH AND DEVELOPMENT</b>
Concept of Growth and Development
Development and Maturation; Principles of Development
Different Stages: Infancy Characteristics
Different Stages: Childhood Characteristics
Different Stages: Adolescence Behavioural Characteristics
Different Stages: Adolescence Behavioural Characteristics
Dimensions of Development: Physical
Dimensions of Development: Mental & Emotional
Dimensions of Development: Moral & Social
Individual Difference
Aptitude Tests & Interest Inventories

### Concept of Growth and Development

#### Human growth and development

##### Definition

**A Angyal (1941)** development can't be considered in terms of the mind alone but rather in terms of the individual as a whole in relationship with his existence with others.

**J F Anderson (1950)**, says development is a complex process of integrating many structures and functions.

##### Maturation

It is the unfolding of the characteristics with which the child is endowed. As the child grows, the various parts of the organism begin to exercise their function only when they reach a certain state of maturity. For instance, muscles of the leg must reach a certain degree of maturity before the child can walk. Birth itself takes place only when the organism has reached a certain maturity.

S.No	Growth	Development
1.	Increase in size, height, weight and length bring in quantitative change called growth.	Changes in form, shape, bringing qualitative change in function of character is called development.
2.	Growth refers to physical changes.	Development refers to the overall changes including physical.
3.	A part of development is growth.	Development addresses changes as a whole.
4.	Growth stops with maturity.	Development continues throughout the span of life.
5.	Physical changes or growth is observable and also measurable.	Qualitative changes or development is not totally observable and measurable.
6.	Growth may or may not bring in development. Physical change may not result in functional change.	Development may or may not include growth even on improvement in functioning of the individual.

## Principles of Development:

### **1. Development follows a pattern**

Prenatal and postnatal development of human being follows a pattern of a general sequence. Physical development, motor or language development, and intellectual development take place in definite sequences.

### **2. Principle of developmental direction**

Direction of development from head to limbs i.e., in longitudinal axis is cephalo-caudal and development from the centre to the periphery is called 'proximodistal' direction. Child gains control over its head first, then arms, and legs last. Likewise, child learns to control large muscles first and then does finer movements with smaller muscles. (e.g. hands and then fingers).

### **3. Continuous development**

the process is continuous starting from the conception through birth to lifelong i.e., from womb to tomb.

**4. Rate of growth and development is not uniform.** Though development is continuous, the rate of growth and development is not uniform. Rapid changes occur in early years and slows down in later years. During adolescence again there is sudden rise in spread of growth and development.

### **5. Principle of individual differences**

With respect to rate of development, quality of development in various dimensions differs from person to person.

### **6. Development proceeds from general to specific responses**

Responses are first general before they become specific, almost in all dimensions of development. It means general activity precedes the specific activity in all the phases of child's development.

### **7. Principle of integration**

By proceeding from general responses to specific response again, these specific responses are integrated to form the whole. It means the movement from whole to parts and again from parts to whole takes place.

### **8. Principle of inter-relationship**

Development in various aspects of the child is interdependent due to inter-relationships. Development of one dimension in social aspect influences the emotional development. In effect all the dimensions of development relate with or influence each other.

### **9. Development is spiral and not linear**

Development does not take place in steady pace or in linear manner, but takes a pause during which development is consolidated. With this, there is a back and forth movement giving a spiral form.

**10. Growth and development are a product of both heredity and environment.** Child's heredity gives the starting point and from then on growth and development take place due to interaction of the child with the environment.

### **11. Principle of predictability**

Rate of growth and development of each child gives scope to predict the future development, either physically or intellectually.

### Infancy Characteristics:

The period just after birth is called as infancy, which according to some psychologist is of 2 weeks duration. But broadly speaking infancy is considered to be over a period of 2 month. The period of infancy is one where rapid physical development takes place.

### A. Characteristics of Infancy

A. The following are the important characteristics of this period.

1. **Extreme Helplessness:** This is a period of extreme helplessness. A young infant is generally dependent upon the caretakers, especially his mother for his basic needs. However during this period newborn gradually becomes independent.
2. **Shortest Period:** This is the shortest development period, as it liost for a period of about two weeks.
3. **Radical Adjustment:** Quick and radical adjustment takes place during this period. A young infant makes adjustments with respect to breathing, temperature regulation elimination etc.
4. **Loss of Weight:** During this period while making adjustments, the young infant losses considerable weight.

### **B. Physical Characteristics of Infancy:**

1. Besides increase in height and weight, which are obvious sings of growth, there is also less obvious sings of growth in muscles. Muscles increase not only in size but in the precision and control with which they can be used.
2. Bones harden and skeleton is transformed from a gelatinous mould into a sturdy frame.
3. Infants body weight doubles in first five months and triples by the end of the first year. While the length increases by 20 percent in three months and 50 percent in one year.
4. At birth all twenty baby teeth and a few permanent teeth are developing although they will not usually begin to make their appearance until around the middle of the first year.
5. By six months the child has gained considerable control over voluntary movements.
6. Motor development occurs in an orderly, predictable manner according to sequential pattern. The sequence follows the law of developmental direction of head to foot etc.
7. Respiration rate at first range from 40 to 45 breathing movements per minute. By the end of the first week of life, it normally drops to approximately 35 per minute and is more stable then it was at first.
8. The infant's sleep is broken by short waking period which occurs every two or three hours, with fewer and shorter waking periods during the night than during the day.

### **C. The Senses of Young Infant**

1. Touch is the easiest sense to develop sensitivity to touch and pain increases during the first five days.
2. Smell: Infant can distinguish between different types of odour. The infant can distinguish odours is shown by crying head turning and attempts to withdraw from unpleasant stimuli and by sucking and relaxing.
3. Vision: The visual field of the infant is only about one-half that of the adult because the rods are undeveloped except around the fovea. Peripheral vision will narrow at birth more than doubles between 2 and 10 weeks of age. The baby's eyesight becomes progressively more acute, approaching adult by age 3.

### **Childhood Characteristics**

Childhood is characterised by three stages  
Pre childhood 3 to 6 years  
Early childhood 6 to 9 years  
Late childhood 9 to 12 years  
As there are individual differences there is no rigidity in the classifications.

### **Physical and Motor Development**

#### **Height**

Average height of the body at birth is about 56 cms. It grows very rapidly during the first two years and attains double the height by seven years. Girls grow less than boys in their height.

#### **Weight**

The average weight at birth is about 3 Kgs to 4 Kgs and grows three times by 5 years. By the end of adolescence boys are heavier than the girls though growth is faster in girls than in boys.

#### **Body Proportions**

The head at birth is 22% of the total body length. Afterwards the proportionate growth of head decreases. By the end of adolescence head becomes one-eighth of the body as there is change in the proportion of the trunk. The size of the trunk is doubled by 6 years.

## **Bones**

Bones are soft at birth with great amount of water and more flow of blood

## **Teeth**

It appears starting at the age of 6 months; four teeth by one year, and twenty teeth which are called milk teeth by 2-1/2 years. Milk teeth fall by 5 or 6 years and are followed by permanent teeth.

## **Nervous system**

There is a rapid growth of nervous system in the prenatal and the first three years of postnatal period, and the slow down. The human brain is the most complex piece of machinery in the universe. It is during the first five or six years of life that some 50% of brain's nerve cells are connected. The nervous system is made up of the brain, spinal cord and the mass of connecting nerves. All these gets shaped during this period.

## ***Cognitive Development***

During infancy, children experience many kinds of sensations such as hardness coldness, pain, pleasure, sensation of sound, sight, etc. The child learns to compare various sensations, recognizes similarities and organizes thoughts and makes simple generalizations. Development of curiosity and questioning attitude develops during the period. Early childhood memory is basically rote memory without reasoning. Span of attention increases with age for the child.

Children are able to understand the language of others long before they start speaking the words. By 2 years they speak 250 words and by 6 years – 2500 words. By 10 years it is 9,500 words.

Children develop special vocabulary, number vocabulary, money, time vocabulary, slang word and swear word. They develop reading, writing and speaking. Adolescents develop a taste for poetry, there is style in their speech and also become more self-conscious.

## **Moral Development**

Moral means characterizing a person or groups whose conduct is ethical or proper. Moral development refers to the spontaneous restructuring of a child's psychological field, due to cognitive maturation, which creates a new way of evaluating moral problems. During infancy physical pain is the only check on his conduct. Reward and punishment are the chief influences under which his moral development takes place. During childhood, child develops his own code and is faithful to his own group. His morals are ruled by public opinion, social praise and blame. During adolescence it becomes progressively more abstract and less concrete. Moral convictions

become more concerned with what is right and less concerned with what is wrong. Moral judgment becomes increasingly cognitive.

### **Emotional Development**

The word emotion is derived from a Latin term *Emovere* which means to stir up, to agitate or to excite. Emotions influences actions in many ways. Emotions develop rapidly and almost all the emotions are developed in infancy. During childhood children learn to hide their feelings and express the emotions in appropriate and socially approved ways. Their emotional behaviour is not guided by instinctive cause as of infancy stage, but has an appropriate rationale behind it. Religious, moral, patriotic and aesthetic sentiments begin to develop at this stage.

Adolescents experience violent and intensive current of emotions. The sudden functioning of the sexual glands and tremendous increase in physical energy makes them restless and are highly inconsistent in their emotions. They have fluctuating emotions, which are frequent and quick. It makes them moody. Fear, worry, anger, jealousy, affection are some emotions accompanying human life.

### **Social Development**

Learning and living with others by relating variously paves way for social development. Early social experiences play a dominant role in determining a child's further social behavior and attitudes. According to E B Hurlock, social development means the attaining of maturity in social settings. Crow and Crow says social development means acquisition or the ability to get along well with oneself and others.

Infant's starts recognizing the people, identifying the regular attendants either mother and smiles. It totally depends on others.

### **Individual Differences**

#### **Aptitude Tests & Interest Inventories:**

Definition : Aptitude:A mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individuals response to all objects and situations with which it is related. – *Allport*

#### **Aptitude test:**

#### **Differential Aptitude Tests (DAT) – 1947 [for secondary school students]**

1. Verbal reasoning
2. Numerical ability
3. Space relations
4. Abstract reasoning
5. Clerical speed and accuracy
6. Mechanical reasoning with combination of several factors
7. Language ability in spellings and use of sentences

#### **General Aptitude Test (GATB)**

G - General reasoning ability

V – Verbal aptitude

N – numerical aptitude

S – Spatial aptitude

P – Form perception

Q – Clerical perception

K – Motor coordination

F – Finger dexterity

M – Manual dexterity.

GATB norms are stated in terms of 23 Occupational Aptitude Patterns.

**Clerical Aptitude Tests**

According to Bringam, clerical aptitude test involves several specific abilities like

- a. Perceptual ability of words and numbers with speed and accuracy.
- b. Intellectual ability to grasp the meaning of words & symbols.
- c. Motor ability to use various types of machines and tools like typewriter etc.

**Unit V**

<u>INTELLIGENCE</u>
Meaning and Concept of Intelligence
Intelligence Theory: One Factor & Two Factor
Intelligence Theory: Group Factor
Intelligence Theory: Multi-Factor
Intelligence Theory: Guilford Structure of Intellect
Intelligence Theory: Vernon Hierarchy & Multiple Intelligence
Measurement of intelligence: Constancy of IQ and Classification
Measurement of intelligence: Test of Intelligence
Uses of Intelligence and Limitations
Exceptional Children Meaning and Types
Gifted children: Identification, Characteristics and Educational Programs.
Slow Learner: Identification, Characteristics and Educational Programs.
Multiple Defects: Identification, Characteristics and Educational Programs.
Juvenile Delinquency

**Definition**

- ❑ Ability of an individual to direct his behaviour towards a goal. - Binet
- ❑ Ability to adjust oneself successfully to a relatively new situation. -William James
- ❑ Adaptation to physical and social environment - J Piaget

**Theories of Intelligence**

**Unitary theory or monarchic theory**

According to monarchic theory, intelligence is regarded as an adaptiveness which enables a creation to adjust itself to changing environment. This is a popular view which regards intelligence as a single unit or a unitary faculty that determines the level of man’s achievement in any intellectual enterprise he may undertake. An inborn all round mental efficiency is a sign of intelligence.

**Two factor theory**

An English psychologist, Charles Spearman in 1904 developed the two factor theory.

Intellectual abilities comprise two factors. ‘G’ factor – general ability or common ability and ‘S’ factor – a group of specific factors.

‘G’ factor is universal inborn ability which is constant from birth and varies from individual to individual. It is used in every life activity and the greater the ‘G’ factor greater the success in life.

'S' factor is part of the whole performance. It is learned and acquired in the environment and varies from activity to activity in the same individual. In general individual differ in the amount of 'S' ability.

### **Anarchic of Multifactor theory**

American psychologist E L Thorndike developed multifactor theory. Intelligence, is forming a number of actual or potential specific connections between specific stimuli and responses. It suggests intelligence as a combination of numerous separate elements or factors each one being a minute element of an ability. There is no such general intelligence but there are only many highly independent specific abilities which go into different tasks.

He distinguishes four attributes of intelligence

Level: It refers to task difficulty. If the test items are arranged in sequential order of increasing difficulty then the high that we can attain on this ladder of difficulty determines the level or altitude of intelligence.

Range: Range or width refers to a number of tasks, at any degree of difficulty, that we can solve. It is the breadth of experience. Range is represented by items of equal difficulty.

Area: Area in a test means the total number of situations at each level. It is summation of all ranges at each level of intelligence.

Speed: Seed is the rapidity with which we can respond to test items. Speed and altitude are positively correlated.

### **Group factor theory of Intelligence:**

Thrustone was a prominent propagator who says certain activities comprising a group of sub-skills, which form a group, the term 'group factor'. He found correlations of appropriately 60 separate tests and differentiated nine such factors:

Verbal factor: Concerns with comprehension of verbal relations, words and ideas.

Spatial factor: Involved in any task in which the subject manipulates an object imaginatively in space.

Numerical factor: Ability to numerical calculations rapidly and accurately.

Memory factor: involves the ability to memorize quickly.

Word fluency factor: Involved whenever the subject is asked to think of the isolated words at a rapid rate.

Reasoning: Found in tasks that require the subject to discover a rule or principle.

Inductive reasoning: Deductive reasoning

Perceptual factor: Ability to perceive what is exactly there.

Problem-solving ability factor: ability to perceive the problem and solve it.

### **Structure of Intellect by Guilford**

Mind is composed of at least three dimensions, operations, contents and products. Every intellectual ability, in the structure, is characterized in terms of type of operations, the content and the resulting product.

### **Operations**

Cognition: Discovery, rediscovery or recognition of information is the most (fundamental) important operation in learning process.

Memory: Retention and recall of what is recognized. It is a primary mental process.

Divergent production: Searching for all possible situations and varieties of thinking. It is also a component of creativity which shows the relationship between intelligence and creativity.

Convergent production: Generation of information from the given information. Conventionally accepted and best outcomes are emphasised. The given information fully determines the response.

Evaluation: Making decisions or judgements concerning criteria as to goodness, correctness, suitability or adequacy of what we know, what we remember and what we produce in productive thinking.

### **Contents**

- ✓ Figural: Concrete material perceived through senses, spatial and linear relationships. Visual material has properties of size, form and colour. Things we hear or feel provide other figural material.
- ✓ Symbolic: Symbolic content is composed of letters, digits and other conventional signs, usually organized in general patterns such as the alphabet or the number system.
- ✓ Semantic: Semantic content is in the form of verbal meanings or ideas for which examples are unnecessary.

### **Products**

When a certain operation is applied on certain kind of content six kinds of product may be the resulting factors

- ✓ Units: A Segregated whole. Number of B.Ed., students in Andhra Pradesh during a year produces a unit.
- ✓ Class: A Set of objects with common properties. Circular shapes of hairless animals, edible foods.
- ✓ Relations: A connection between two things. Eg. The wind on lake is the greatest in late afternoon after the sun has warmed water.
- ✓ System: A Complex pattern or organisation of independent parts or units. An essay or an outline for an article is a system including divergent and convergent thinking..

Thus Guilford structurally presented five categories of mental operations working on four kinds of contents giving rise to six kinds of products. The total outcome of 120 factors i.e. by 4 contents X 5 operations X 6 products are traced.

### **Emotional Intelligence by Daniel Goleman**

Knowing one's emotions: self-awareness

Managing emotions:

Motivating oneself:

Recognizing emotions of others: empathy

Handling relationships

### **Theory of multiple intelligence by Howard Gardner**

Linguistic Intelligence

Logico – Mathematical Intelligence

Visual Spatial Intelligence

Musical Intelligence

Bodily Kinesthetic Intelligence

Intra-personal Intelligence

Inter-personal Intelligence

Naturalist Intelligence

### **Testing of Intelligence**

Intelligence Quotient

Termon associating with M A Merrill revised Binet's scale of Intelligence again in 1937. This scale used the concept of intelligence quotient. It involves the following concepts:

Chronological age is the physical age of a person, counted from the date and time of his birth. It is counted in terms of years, months and hours.

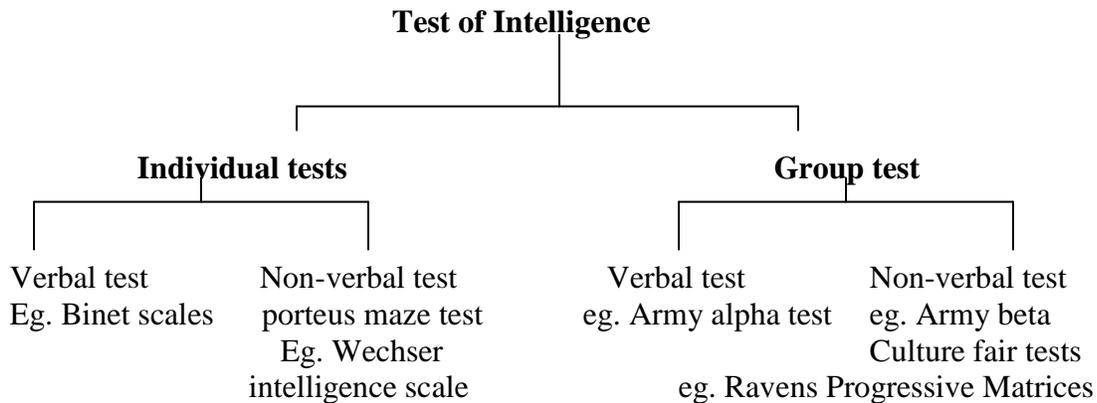
Mental age is an index of intelligence. Mental age means that a given child's performance in a contest is like the average performance in the same test of children of a given chronological age.

E.g. if Rubesh is 8 years old, first she must be given intelligence test starting from 4 or 5 years age test. If she does all the items of these tests and also of 6,7 and 8 years age tests, then she must be given the test meant for 9 years. If that test consists of eight items, and she does 6 items correctly, her mental age is  $8 + \frac{6}{8}$  or 8.75.

### **Intelligence Quotient (I Q)**

Intelligence quotient is synonymous with intelligence. It means a child's mental age divided by its chronological age multiplied by 100.

$$\begin{aligned} \text{Intelligence quotient I Q} &= (\text{Mental age} / \text{Chronological age}) \times 100 \\ &= (8.75 / 8) \times 100 = 109.375 = 109 \text{ I Q} \end{aligned}$$



## **Wechsler Adult Intelligence Scale**

### **Verbal subtests:**

1. information
2. Comprehension
3. Digits Forward; Digits Backward
4. Arithmetic Reasoning
5. Similarities
6. Vocabulary

### **Non-Verbal tests:**

1. Digit symbol test
2. Picture Completion test
3. Picture Arrangement
4. Block design test
5. Object assembly test

### **Group Test of Intelligence:**

Group tests may be verbal or non-verbal or combination of both like individual tests.

### **Army Alpha test:**

This is a verbal group test (1917). The test consists of 8 sections. In each section there are several items.

- |  |          |
|--|----------|
| 1. Following Directions  | 12 items |
| 2. Arithmetic Problem  | 20 items |
| 3. Practical Judgement   | 16 items |
| 4. Synonyms and Antonyms   | 40 items |
| 5. Disarranged Sentences   | 24 items |
| 6. Number Series Completion                                      | 20 items |
| 7. Analogies   | 40 items |
| 8. General Information   | 40 items |
| 9. Different durations of time are fixed for different sections. |          |

### **Alexander's Group of Performance Test:**

1. Koh's Block Design Test
2. The Cube Construction Test
3. The Pass Along Test

### **Raven's Progressive Matrices Test:**

- Army Beta Test
1. Maze test
  2. Cube analysis
  3. Letter arrangement series.
  4. Digit-symbol substitution
  5. Number checking
  6. Pictorial completion
  7. Geometrical constructions.

### **Advantages of group tests**

They save time by testing hundreds and thousands of the subjects together.

No expert is needed in administering them.

Less costly in terms of administration

### **Disadvantages**

They are not as accurate as individual tests. Validity and reliability of group tests is less than that of individual tests. There is possibility of cheating.

They are not suitable for small children.

### **Uses of Intelligence Tests**

1. In the classification of students
2. In educational guidance
3. In vocational guidance

### **Limitations of Intelligence Test**

1. Most of the tests measure intelligence only indirectly through language spoken or printed.
2. Children from better homes are likely to score better than those from poor ones as they have good exposure to develop language and comprehension.

- Intelligence tests are useful in the selection of an occupational level rather than of a particular occupation.

### **Exceptional Children**

Human nature is multifaceted and flexible. Most of the human beings have average capacities and moderate traits. Some deviate from the average and typical people in physical abilities, mental capacities, emotionality, and specialized talents. These deviations give rise to multifarious problems of adjustment to normal procedures of treatment at home, school and social settings. Hence special care is needed to help these children whom we call 'exceptional children'.

#### *Definition*

An exceptional child is he who deviates, physically, intellectually, emotionally and socially so marked from normal growth and development that he cannot be benefited from a regular classroom programme and needs special treatment in school.

### **Classification of Exceptional Children** - **Cruichshank W M**

Depending upon the dimensions of the individual, these exceptional children can be classified as follows:

- |                            |   |                              |
|----------------------------|---|------------------------------|
| Intellectually exceptional | - | Gifted                       |
|                            | - | Slow learner                 |
|                            | - | Mentally handicapped         |
| Physically exceptional     | - | Blind and near blind         |
|                            | - | Speech impaired              |
|                            | - | Orthopedically handicapped   |
|                            | - | Cerebral Palsy               |
|                            | - | Delicate (Physique) persons. |
| Socially exceptional       | - | Juvenile delinquent          |
|                            | - | Problem children             |

### **Gifted Children**

Gifted children have high potentiality to excel in various areas of knowledge and adequate provisions should be made for their learning. A gifted child is an asset of incalculable value to the society.

### **Definition**

A talented or gifted child is one who shows consistently remarkable performance in any worthwhile line or endeavour. Thus we shall include not only the intellectually gifted but also those who show promise in music, the graphic arts, creative writing, dramatics, mechanical skills and social leadership.

- The fifty-seventh yearbook of the National Society of the study of education in USA

The talented or gifted is one who shows consistently remarkable performance in any worthwhile line of endeavors. - Harringhurst

### **Identification of Giftedness**

Gifted could be identified through

- a. Informal methods using observations of teachers, parents, their group members and neighbours.
- b. Formal methods using individual or group tests of intelligence and achievement test batteries of various areas. They are more intelligent than the average people.

### **Characteristics of Gifted children**

1. Physical better than the average children.
2. Have mental superiority.
3. Entertain many sided interests.
4. They are more trustworthy and sincere and less inclined to boast of their knowledge.
5. They receive high grades.
6. Have more positive attitudes.

### **Educating the gifted**

#### **A. Acceleration Approach**

1. Admitting gifted children to kindergarten or first grade according to mental age rather than chronological age.
2. Skipping grades such as promoting the gifted child.
3. Telescoping grades i.e. programming to cover 5 years curriculum in 3 years.

### **B. Enrichment Approach**

Enrichment approach implies the opportunity for understanding special projects and investigations. It is considered to be better than acceleration approach.

Various procedures of enrichment are

1. Encouraging teachers to challenge the gifted child with extra assignments and to provide an opportunity to participate in other than class activities.
2. Grouping gifted children in a class and giving them problems requiring independent research and thought rather than memory process drills.
3. Employing a special teacher for the gifted in a school to identify, to assist, to counsel and to conduct special classes.

### **C. Special Group Approach**

1. Placing the gifted child in a special school.
2. Self-contained special classes within the regular school.
3. Offering advanced courses for superior students.

### **Slow Learners or Backward:**

Slow learners usually don't get benefit from the classroom teaching. Teacher can identify them by their facial expression, inattention, and failure to respond simple questions in the class. These children are a great liability to the society if they are left like that. The slow learners inevitably turn into educationally backward.

### **Types of Backwardness**

1. The dull have intellectual deficiency with 80 to 90 I.Q.
2. General backwardness due to adverse temperamental attitudes or acquired or extrinsic conditions.
3. Specially backward in one or two subjects but average in other subjects.

## Identification of Slow Learners

1. Teachers observations in daily classes or outside to know the child's behaviour and reactions to various situations and child's co-curricular, recreational and other interests.
2. If one's educational ration is below 85, he is a slow learner.

Educational age

Educational ratio = ----- X 100

Mental age

Normal child has it between 85 to 115.

Educational age is obtained by administering scholastic tests meant for various grades and mental age is obtained by using an intelligence test.

## Causes of Backwardness or Slow Learning

- a. Environmental factors:
  1. Poverty at home.
  2. Prevalence of poor intellectual conditions, emotional and moral conditions
- b. Personal factors:
  1. Sub-normal body development, slow reaction time, poor motor skills and muscular coordination.
  2. Low intelligence.

## Education of Slow Learners

The experience of educators confirms that there are many children who are poor in learning or achievement. They need special help. As the causes for slowness may vary the provision for students education may have to vary too. There are two approaches in helping slow learners 1. Segregated approach 2.Integrated approach

## Segregated Approach

It aims at personal adequacy, social adequacy, self-confidence and good work habits, which are not fundamentally different from those of general education. These services need three requisites:

- a. Trained Personnel
- b. Special Curriculum
- c. Special Facilities

### **Integrated Approach**

Segregation of students with some backwardness is not thought as psychologically, socially and economically unsound. NPE of 1986 has an objective of educating a sizable number of disabled in common with other children and sponsored a scheme of 'integrated education' for the disabled either full-time or part-time as it can serve as follows:

1. Slow learners and underachievers can be stimulated and can follow the normal children through normal mental development.
2. It ensures social integration and helps to achieve some basic social qualities.
3. Due to facility of interaction with the average, high achievers and fast learners they have emotional adjustment and accept and acquire a sense of competency.

### **Multiple Defects**

Children who has more than one defect either physically or mentally comes under this category. E.g. A person who is deaf as well as lack of growth of limbs this case is named as multiple defects.

At the early stage if it is detected and if it comes to be limited in degree of defect, then it can be cured are corrected. But otherwise one needs to train them based on their ability and it cannot be cured.

### **Identification**

If it happens to be a physical problem it should be identified at the birth  
At certain cases due to polio attack multiple defects may arise  
Accidents also lead to this kind of problem.

At pre-natal stage this can be seen and can be corrected at certain cases.

### **Characteristics**

#### **Orthopedically impaired**

Abnormalities due to sickness hence not interested, lack of confidence, poor self concept  
Cripples on physical abnormality eg. Low in self confidence, poor motivation

#### **Hearing impaired:**

Difficult to follow directions

Not paying attention, lack of involvement

Hesitancy to participate in large groups; usually withdrawn person

Problems in understanding speech; language difficulty, etc.

#### **Visually impaired**

Blind: doesn't like to move out, limited skill

Partially blind: loneliness, depression

Colour blind: cannot visualize colour

#### **Mentally challenged**

Intellectually abnormal having an IQ range of 75 or below

Due to low IQ, they have low maturation level and cannot do average work.

They are slow in memory, generalization, conceptualization, perception language ability, imagination etc.

Short attention span when compared with normal person

Note: If the child comes in any two or more of the above category of defects they come under multiple defects and they have a combination of the above characteristics.

### **Educational Programmes.**

**Blind:** For partially blind, one can have segregated class, cooperative plan; partially sighted people needs suitable light in class

*Hearing impaired:* hearing impaired should be seated near teacher, teacher should maintain face to face contact, proper supporting aids should be provided.

**Orthopaedically handicapped:** equality of educational opportunities, proper facilities should be provided in school, programmes must recognise the handicaps

Develop initiative and self-reliance, minimum retention etc.

*Mentally retarded:* depending upon degree of impairment, provide opportunities, consider alternate activities/ exercise that can be utilized with less difficulty, train them in field skills like buttoning, bathing, brushing, dressing etc based on their level.

## Juvenile Delinquency

### Definition

A child is to be technically regarded as a delinquent when his antisocial tendencies are so grave that he ought to become the subject of official action. - Cyril Burt

### Types of delinquents

- A. The organic delinquent: Brain Pathology may result in lowered inhibitory controls and violent behaviour. These children are often hyperactive, impulsive, emotionally unstable and unable to inhibit action when strongly stimulated.
- B. The mentally retarded delinquent: Occasionally low intelligent fall prey to the suggestions of brighter socio-paths who exploit them.
- D. The psychohtic delinquent: Due to prolonged emotional and social withdrawal, after a long frustration, results as a by product of personality disorder.
- E. The socio-pathic delinquent: Majority of the juvenile delinquents come under this, and show typical antisocial personality. They are impulsive, defiant resentful, and incapable of establishing and maintaining close interpersonal relations. They lack inner conscience and reality controls and are unable to profit from their experiences in a constructive manner. The following are some of the major reasons for delinquents:
  - 1. Unhealthy family relationships
  - 2. Delinquent sub-culture, lack of values in home, neighbourhood, peer group, poverty, dull homes etc
  - 3. Member of delinquent gangs.
  - 4. Disinterest in studies and disrespect for teachers.
  - 5. Not understanding teachers.
  - 6. Unemployment
  - 7. Media effects

### Unit VI Learning

<u>LEARNING</u>
Concept of Learning - learning process
Importance and Principles of learning
Learning by Observation
Trial and Error Learning

Classical Conditioning
Operant Conditioning
Insightful Learning
Intrinsic and Extrinsic Conditions of learning Curve
Plateau of Learning Curve
Transfer of Training: Concept and Significance.
Transfer of Training: Facilitative Conditions and Methods/Types.
Factors Influencing Learning: Learner Factor & Learning Material Factor, School Factor, Home Factor & Social Factor

### Definition

Any activity can be called learning so far as it develops the individual and makes him alter behaviour and experiences different from what that would otherwise have been.

- Woodworth

Learning is the acquisition of new behaviour or the strengthening or weakening of old behaviour as the result of experience.

- Henry P Smith

### Importance and Principles of learning

Learning is a human behaviour. Learning plays a central role in the language we speak, our customs, attitudes and beliefs, our goals, our personality traits and even in our perceptions. As a consequence learning principles are as follows:

- Learning is continuous
- It results in improved performance
- It is purposive and goal oriented.
- It is gained through practice and experience.

### **Observation**

Learner perceives people or objects in the environment, gives definite meaning to them, and focuses attention on them to conserve them in the brain, so that knowledge about them may be utilized in future.

Learning by observation refers to some sort of imitation with understanding and meaning just by observation.

Imitation: is the commonest phenomenon in all the lower or higher animals. Consciously or unconsciously the learner imitates playmates peer groups and elders.

**McDougall** defines ‘Imitation is an innate tendency possessed by members of gregarious species, owing to which an individual attempts to copy in himself the actions and movements that he finds in others.’

### Laws of Imitation

1. Imitation proceeds from higher to lower
2. Imitation proceeds from internals to externals
3. Modes of doing persist more definitely than modes of thinking
4. Imitation proceeds in geometrical progression

## Bandura's Social Learning Theory

Albert Bandura is a prominent American social learning of theorist. Children keenly observe the behaviour of others and try to imitate what they observe. They learn not only through watching but also by listening to other people, imitate the behaviours of the characters he reads about in novels, sees on TV, radio etc.

Bandura introduced his social learning theory (1971) by saying, "we don't blindly respond to environmental stimuli. Rather, we pick and choose from many environmental opinions, base our decisions on our own insights and past experiences. This we do through vicarious or observational learning, by incorporating and imitating the behaviour of those around us." Observational or vicarious learning rather than the learning based on direct experience is thus the base of the social learning theory.

According to Bandura, "One does not teach children to swim, adolescents to drive automobiles by having them discover the appropriate behaviour through the consequences of their successes or failures. The more costly and hapzardous the possible mistakes, the heavier is the reliance on observational learning from competent examples."

### Process of Observational Learning

Bandura emphasized four interrelated sub-processes.

- a) Attention Processes:
- b) Retention Processes:
- c) Motoric Reproduction of Skills: A behaviour observed and remembered by the learner is analysed in terms of its acceptability to the learner with reference to the demands of his self and his environment.
- d) Reinforcement: we tend to inhibit a vicariously learned response to the extent that he believes he will be rewarded or punished for performing the act. Reinforcement also may alter the level of observational learning by affecting who or what the observer will attend to and how actively he codes and rehearses the behaviour of the model. People express love, anger, sympathy, dress, eat all depend upon what was observed, retained and imitated and also reinforced.

### Trial and Error Learning

American psychologist, Thorndike formulated this theory of trial and error learning. Motor learning is the simplest form of learning. In learning to swim, dance, drive, many wrong movements and strokes are tried and discarded one by one till the correct movements are established. Till then trial and error process goes on in learning.

### Experiment

Thorndike made a puzzle box to study the way of learning of a hungry cat. Puzzle box had bars through which the cat could see the food kept outside the box. The box was such that a lever had to be manipulated to open the door to come out. The cat tried many things but could not come out. But accidentally it pushed the latch and the door opened. When the cat was put in the same position, it once again tried many ways but finally found the latch to open. The cat slowly removed unwanted response and learnt the correct response of opening the door of the cage.

Law of readiness:

**when a bond is ready to act, to act gives satisfaction, and not to act gives annoyance. When a bond which is not ready to act is made to act, annoyance is caused.**

**Law of Exercise: when a modifiable connection between a stimulus and response is made and is accompanied by a satisfying state of affairs, the connection strength is increased; and the connection strength decreases if it is followed by a dissatisfying state of affairs.**

**Law of Effect:** when a modifiable connection is not made between a stimulus and a response, over a length of time, that connection strength is decreased. If the result is satisfying state that will be carried again and again. If annoying state result those responses will be avoided.

Educational Implications

- Motor skills and activities are learnt through trial and error manner.
- Language learning is based on this method.
- Participation leads to more participation and hence teacher has to encourage and motivate students.

### ***Classical Conditioning***

Russian physiologist Ivan Pavlov proposed classical conditioning theory. According to him conditioning is the process by which an association between a stimulus and response is learnt.

#### **Pavlov's experiment**

He was studying the digestive system of dogs and during this process he noticed that the mere sound of the footsteps of the servant who feed the dog caused the dog to salivate. Food is a natural stimulus of the salivary reflex. Usual salivation at the sound of footsteps interested Pavlov so much that he was able to demonstrate the dog can he made to salivate to any stimulus, however strange or unnatural it may be such as ringing of bell. Salivation is a reflex action. If the bell is rung before the dog it may bark.

Food (Unconditional Stimulus)                      Salivation (Unconditional Stimulus)

Bell (Conditional Stimulus)                      Salivation (Conditional Response)

#### **Principles of classical conditioning**

Extinction: when food repeatedly did not follow the bell, the dog stopped giving conditioned response, salivation. This disappearance of S R connection is called extinction.

Spontaneous recovery: though there is extinction of conditioned response, it reappears spontaneously but at a reduced intensity to conditioned stimulus.

Stimulus generalization: e.g. fear response for rat is generalized to rabbit etc.

Stimulus discrimination: it is the learned ability of the animal to discriminate between stimuli to give conditioned response. E.g. the dog learned to salivate at the sight of green light but not to red light.

Reinforcement: when conditioned stimulus (bell) was presented alone it failed to elicit natural response (salivation) where there is no reinforcement. When the conditioned stimulus was presented with natural stimulus, the former is said to be reinforced, as it was able to elicit natural response (salivation).

## **Educational significance**

- For penmanship and spellings, automatic responses are more helpful than reflective thinking.
- Language to teach alphabets, and well established habits are shaped by conditioning.
- Animal trainers use classical conditioning principles.
- The four fundamental principles of arithmetic are taught by using beads or such materials to count.
- Use of flash cards, dolls, cubes, pictures or audio-visual material is based on the idea of conditioning.

## Insightful Learning

### Kohler's Experiment

He placed a hungry chimpanzee, Sultan, inside the cage and bunch of banana was kept hanging on top of the cage. Two sticks, one longer and one shorter were placed in the cage. The size of the stick is such that both the sticks have to be joined to reach the banana. Sultan tried various means of reaching but failed. After a while is sat down in a corner and was playing with the two sticks. While playing, accidentally one stick fell into the hole of the other but not properly. This gave 'the animal idea and it joined the stick and reached the banana. This sudden idea leading to the solution is called 'insight', a new perception of the situation and relationship between the sticks and the banana.

### Factors influencing 'Insight'

- a) Intelligence
- b) Experience
- c) Presentation of the problem
- d) Initial effort

### Steps involved in insightful learning

- a) Preparation (sensing or survey of the problem)
- b) Incubation (period of apparently no action)
- c) Insight or illumination (solution appears as a flash)
- d) Evaluation (verifying utility of the solution)

### Educational Significance

- Educational methods have to employ solutions that can foster understanding not merely out of logic, reasoning but out of perception of the problem as a whole.
- Insight learning has made learning purposeful and goal oriented rather than automatic responses.
- Learner is to be motivated by arousing his interest and curiosity to learn the task.
- Teaching has to be planned, 'whole to part and then from part to whole'.
- Small children are to be given concrete materials to perceive essential relations.
- Problem solving approach in learning has to be stressed.

## Operant Conditioning

### **Skinner's Experiments**

Skinner's box is a cage in which a white hungry rat is placed. A simple response of pressing a lever was chosen as a unit of desired behaviour. The movements of the rat were electrically recorded and cumulative record of the behaviour of the rat was obtained.

The rat by chance pushed the bar and got a pellet of food. After eating that pellet, it repeatedly pressed the bar and every time got food pellets. Food reinforced the bar-pressing response and soon the rat became conditioned to the response. *Reinforcement is central to operant conditioning.* The food reinforced the behaviour of pressing the bar. Even pigeon was also studied in this manner. The law of operant conditioning states that if the occurrence of an operant is followed by the presentation of a reinforcing stimulus, the strength of operant is increased. If the response (operant) is not reinforced, it results in the extinction of the response. Extinction of a response means it is becoming less and less frequent.

### Schedules of Reinforcement

This refers to the pattern according to which reinforcers follow responses. There are mainly two types of schedules.

1. Continuous reinforcement – reinforcement is given to every response.
2. Intermittent reinforcement – some responses are followed by reinforcement.

If the inter reinforcement depends on the rate at which responses are emitted, this is called *ratio schedule*. On the other hand, it depends on passage of time, is called an *interval schedule*. Further more, each of the ratio and interval schedule can be either fixed or variable. Based on this, four kinds of schedule are formed:

- Fixed ratio schedule
- Variable ratio schedule
- Fixed-interval schedule
- Variable-interval schedule

### Shaping

It is a technique used to train animals to perform acts, which are not within their normal range of behaviour. The complex behaviour is shaped through a series of successive approximations, each made possible by selectively reinforcing certain responses and not others. Thus behaviour is gradually brought closer and closer to the designed pattern.

### Educational Significance

- He developed a system of learning called programmed learning using the principles of operant conditioning.
- Desirable behaviour of the learner is to be immediately reinforced positively to strengthen it.

- Fear in children and unpleasant experiences in school cause aversion to students towards school or studies.
- Individualization of instruction.
- Behaviour or response is dependent upon consequences. The learning process and environment have to be designed as to create the minimum frustration and maximum satisfaction to learner.
- It suggested alternatives to punishment, in the form of rewarding appropriate behaviour and ignoring inappropriate behaviour, for its gradual extinction.

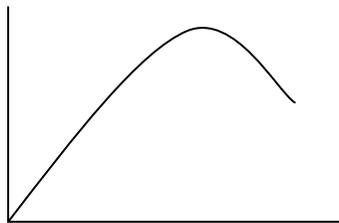
Intrinsic and Extrinsic Conditions of learning Curve

**The learning curve**

The achievements in learning in relation to time factor will be plotted to form a curve called 'learning curve'. The process of learning a motor skill, to type, to learn, to play on a musical instrument and so on are plotted. They take a particular shape.

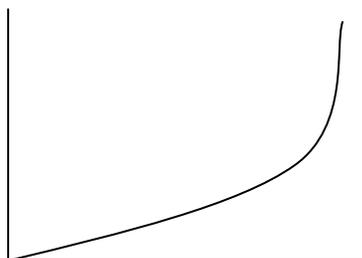
**Negative accelerated curve or convex curve**

It depicts rapid initial improvement when the task is very simple or when the learner has previous practice and slows down with the time if the learner loses interest in learning due to its simple nature.



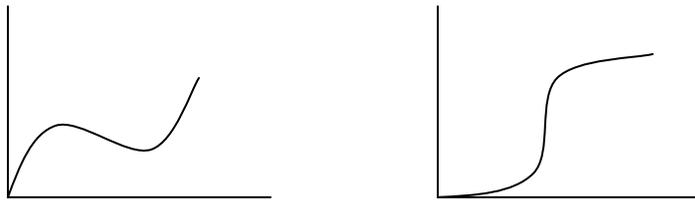
**Positively accelerated curve or concave curve**

**If the task is new or difficult the curve at the beginning is slow but increases with itme leading towards the mastery over material. The challenging task involves the learner and makes him struggle and thus increases enthusiasm**



Concave – convex curve or S curve

**The mixed curves occur depending on the learning material, learning environment and the learner.**

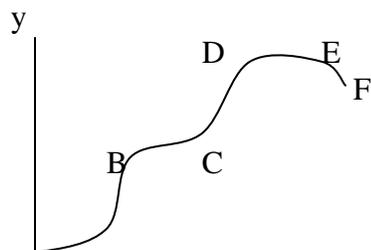


### Straight line curve

This type of curve is seldom found as it shows constant rate of improvement either in terms of material learnt correctly or in terms of reduction of errors per trial.

### **Plateau of Learning Curve**

*Plateaus:* It is the practice limit for one way of performing the task. Plateaus may be one or more in learning a task.





There are four categories of transfer of learning

<b>MOTIVATION</b>
Concept, and Type
Achievement Motivation and Classroom Motivation
Functions of Motives
Theory: Hull's Drive Reduction
Theory: Maslow's Hierarchy of Needs
Fear of Failure and Hope of Success
Praise and Blame; Reward and Punishment
Feedback, knowledge of results and levels of aspiration

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- transfer- Skills learned while type writing facilitates working with computers.
- 2. *Negative transfer*- Hitting in ball badminton interferes with hitting in shuttle badminton.
- 3. *Zero transfer*- Learning to run a machine does not help in learning to drive a car.
- 4. *Bilateral transfer*- The possibility of transfer of training from one hand to the other has been studied with reference to simple motor skills. E.g. activities such as throwing a ball at a moving target, mirror drawing etc. has shown that there is a positive transfer sometimes even as much as 50%.

Factors Influencing Learning:

- **Learner Factor: sensory abilities, health, maturation, interest, temperament, personality, etc.**
- **Learning Material Factor: figures, diagrams, models, etc.**
- **School Factor: Facilities, peer group, teachers influence, freedom, co-curricular and extra-curricular activities, etc.**
- **Social Factor: Culture of the society, peer group, etc.**

## Unit-VII

### Motivation

Motivation is taken from a Latin word 'movers' that means to move. It is an internal force, which accelerates a response or activity or behaviour. The idea of motivation in learning was brought out in Thorndike's puzzle box experiment where it was stated as law of readiness. Motive is an internal force, which organises and reinforces the energy required for any response. Motives initiate, and reinforce the activity but also organise, conduct and direct the activity towards a particular goal. All biological drives have a bearing on motivation necessary for the learning process.

## Definition

**C F Skinner (1947)**, 'Motivation in school learning involves arousing, persisting and directing desirable behaviour.'

## Achievement Motivation

Murray used the term 'n-Ach' or need achievement to refer to motivation that is instrumental in stimulating individuals, both children and adults, to strive towards achieving some goals.

**Atkinson and Feather (1966)**, The achievement motive is conceived as a latest disposition which is manifested in overt striving only when the individual perceives performance as instrumental to a sense of personal accomplishment.

## Classroom Motivation

To motivate children in the classroom for learning is a crucial problem, which concerns all teachers. Following are certain techniques, which can be adopted by teachers to motivate the students:

Rewards in the form of prizes, distinctions, grades, decorations etc. generate interest and enthusiasms in pupils and appeal to Ego involvement and Ego-maximization.

- Use of proper incentives
- Students should be helped to feel the utility of what they learn by relating them to practical life situations.
- Provide feedback as quickly as possible with proper reinforcements.
- Help students to set realistic goals and guide them to achieve it.

All these will help in motivating and sustaining student's motivation in classroom. Besides the above mentioned strategies suitable instruction and practices should be adopted by teacher to be successful.

## Characteristics of Motives

By analyzing the definition of motivation the following characteristics can be inferred:

1. Motivation is a psychological process (internal)
2. This internal process is initiated by some need or want.
3. It directs our efforts towards goal that satisfies the need; i.e. it helps us to select the appropriate behaviour so as to reach the goal.

## Classification of Motives

### Primary Motives

Motives are defined as primary and secondary motive. Primary motives are unlearned and they are essentially a function of maturation. Primary motives also referred as 'Biogenic Motives' (physiological motives) are active throughout the life. E.g. hunger, sex, escape from pain etc.

**Secondary Motives** are acquired by the process of learning and they are essentially social in character e.g. acquisition, imitation aggression adventure etc.

### Intrinsic and Extrinsic Motive

In another classification of motives, they are divided into 'intrinsic' and 'extrinsic' motives. Psychologically all motivation is intrinsic. By extrinsic motivation we refer to certain incentives or reinforcements that are external. The extrinsic incentives may consist of money or a toy or sweet.

Intrinsic motivation is inherent in the activity itself. The task is undertaken because it is rewarding. The task leads to goal. The task is not undertaken for something else but performing it itself is satisfying. Adults are intrinsically motivated to hear music, go to temples and offer prayer etc.

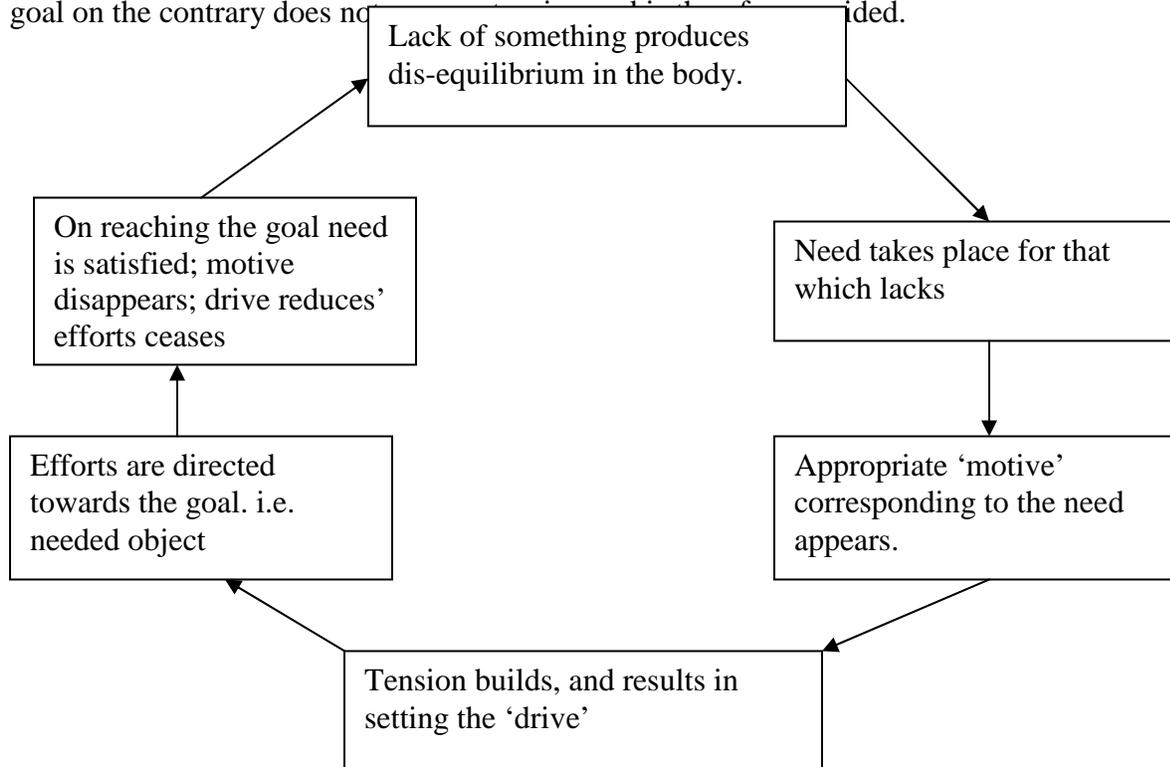
## Theories of Motivation

The process of motivation (how motives arise and control the behaviour) has been explained by different psychologists. While behaviourists emphasize extrinsic motivation, cognitive theorists advocate intrinsic motivation.

### Hull's Drive-reduction Theory

When an organism is deprived of something, it finds itself in a state of dis-equilibrium and a condition of tension is created. This makes the organism energized and it becomes active, trying efforts to reduce or eliminate the tension. The emerging state that is produced by tension is called 'Drive'. The emerging source of behaviour is the drive and learning occurs only when behaviour is reinforced, by the reduction of some drive.

Behaviour according to **Hull** becomes goal oriented by virtue of the selective reinforcement of certain responses, resulting from the attainment of the goal. Behaviour that does not lead to the goal on the contrary does not receive reinforcement and is not repeated.



Form example when glucose level in blood goes below a particular level, we are in need of it, i.e., food. This need for food sets the 'hunger motive' in us, due to which stomach muscles start contracting and expanding and consequently, we feel a kind of pinching in the stomach. This tension generates 'drive' in individuals to make efforts in getting food. After getting food, need vanishes, drive gets reduced and the motive disappears. Our food-seeking efforts come to an end. When the operation of a motive ceases, another motive may appear and guide the behaviour of the organism. Viz. when hunger is satisfied, 'thirst' may motivate the behaviour; then 'sleep' may follow and so on. This '**motivational cycle**' is explained in the above diagram.

$$SE = \frac{SH \times D \times V \times K \times I - SO}{SH = 1 - 10^{-an}}$$

SE is reaction potential for a particular response.

D is the level of 'Drive'

K is the magnitude of 'reward'

V is the stimulus intensity

I is the Inhibition (resistance) developed to a response due to repetition of the same, a number of times.

SO is the Oscillatory reaction strength

'a' is an empirical constant which is .03 for human beings; this value is greater for animals.

'n' is the number of reinforced trials required to form a habit. Only when the value of SE crosses a particular minimum value (called Threshold potential) response will occur. Among the values SH, D, K, V if any one is zero, Se will become zero and no response is possible. Hence we can not firmly say that a response will appear if a stimulus is presented. Response will emerge only when SE crosses the threshold.

Before Hull propounded his theory it was believed that reward and praise alone can reinforce behaviour. But Hull argued that escape from pain need reduction etc. also serve as reinforcers.

### Functions of motives

1. **Motive arouses interest**
2. It activates drive in order to reach the target
3. It enhances performance
4. It sustains interest in the target
5. It satisfies the Ego.
- 6.

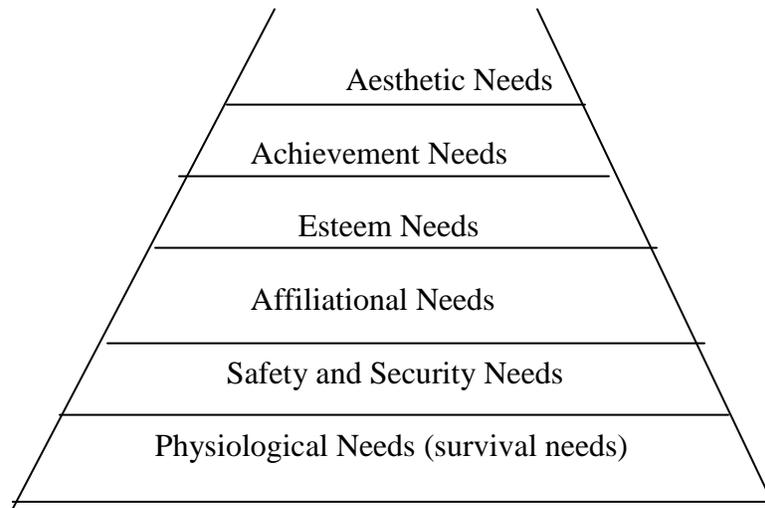
### **Theory: Maslow's Hierarchy of Needs**

Abraham Maslow proposed theory of need gratification and growth motivation. According to him,

- Human needs are many and multiple; all are not of equal importance, i.e. needs can be arranged hierarchically.
- The organism will aspire for higher order needs only when the lower order needs get fulfilled.

Maslow classified and arranged needs in a hierarchy as lower order needs assume priority and higher level needs become functional after lower level needs are satisfied. Thus the hierarchy of human needs can be represented pyramidically as follows:





### Physiological Needs

These are lower in the motivational hierarchy, which include need for food, water, oxygen, sleep, sex, sensory satisfaction etc. These are vital for survival and hence should be fulfilled before the next higher order motives become prominent.

### Safety and Security needs

These include shelter, clothing and personal safety, security of the future, routine, regularity etc.

### Affiliation needs

Every individual likes to have some relations with others in order to talk, chat, make love, and be recognized etc. It refers to the individual's hunger for affection. A person, who is not loveable because of his behaviour, needs to be loved most.

### Esteem needs

In all of us there is a desire for strength mastery, competency etc. leading to a feeling of independence and freedom. We want to be high in the eyes of others. Satisfaction of this self-esteem need generates feeling of worth, confidence and adequacy. Lack of satisfaction of this need results in discouragement, feelings of inferiority and inadequacy.

### Aesthetic needs

This is concerned with appreciation of order and beauty. One whose lower order needs are fully satisfied or known that he need not bother about them, derives pleasure in beauty, nature etc. Tagore, Wordsworth etc are best examples for this.

### **Self-Actualization needs**

Fulfilling one's individual nature in all its aspects. One who is talented in one specific area feels uneasy, if that talent is not nurtured and utilised. He wants to attain perfection in that area. The highest level of functioning occurs when a person is self-actualised. People can be motivated towards self-actualisation only when the lower order needs are satisfied.

### **Educational implications of Maslow's theory**

- The lower order needs are to be satisfied if the child is to focus on achievement or get motivated to learn.
- Ventilation, lighting, furniture blackboard, mid day meals etc are vital for motivation.
- Individual tents to raise his goals after success and lower them after failure; so teachers should maintain realistic level of aspiration by providing graded assignments ensuring to include certain amount of success for every pupil.
- Teacher should enhance attraction by using A V Aids and minimize dangers of growth needs.
- Curriculum should be designed to suit the local population to make it effective and interesting for students to learn.
- Learning by doing should be followed to a greater extent.
- Participation leads to further participation.

### **Fear of Failure and Hope of Success**

Children tend to raise their confidence when attained success and lowers them when faced with negative results. Fear of failure will add huge pressure on individual especially when they are low achievers. This results in severe depression and hence teacher has to help the students to set targets according to their abilities and constantly guide them. People who are low in self-confidence has to be motivated to believe that they can achieve and hence set new targets to reach their goals. Hope of success will give positive feelings about themselves which will boost their ego. Teacher has to carefully mentor the students to make sure that children are attaining their reasonable targets.

### Praise and Blame

**These are verbal rewards and punishments. Praise being pleasant stimulus, facilitates learning especially if it is from a loved person or from a person of high esteem and prestige. Blame being unpleasant hampers learning. But things happen may be vice-versa, depending upon the 1. Nature of person 2. Gender 3. Intelligence and 4. Age and other factors.**

### Reward and Punishment

These are two potent and powerful incentives, which influence the future conduct or learning of an organism. Rewards help to 'stamp in' the desired responses. Rewards may be in the form of gifts, prizes, money, certificates or other objects of value to individual.

Punishment is supposed to 'stamp out' the S-R connection as suggested by Thorndike. It is based on physical pain and embarrassment and loss of status. Punishment has to be simple and reasons for punishment are to be clearly acknowledged by the individual to be effective. This

makes it a deterrent for wrong doers, but increase in the intensity of punishment beyond a limit will disrupt learning.

**Feedback,**

Feedback plays an important role in any communication to be effective. It gives new ideas, insights, and reflections about a particular event or thing under consideration. In classroom teacher gets feedback from the students in terms of their behaviour during the class, their performance in exams, and their behaviour at different situations, etc. Formal feedback could be obtained in the form of feedback forms while informal feedback can be obtained through interactions, discussions etc. Teacher has to device ways and means to collect feedback in order to be effective.

**Knowledge of results**

It is believed that children have to be informed about their performance as soon as possible. A psychological study says that examination papers have to be corrected and given within three days, as this would help the students to refer and reflect upon the answer script meaningfully. Delay in giving results decays the motivation and curiosity to know about it. During evaluation proper comments should supplement the marks so that it gives valuable insights about the mistakes and positives in the answer script. Hence as teachers one should be aware of the above and implement them regularly.

**Levels of Aspiration**

**Frank** defines level of aspiration as ‘the level of future performance in a familiar task which an individual, knowing his level of past performance in the task, explicitly undertakes to reach’.

**Hoppe F** defines it as ‘the degree of accomplishment consciously striven after by an individual’. In general, normal people set their level of aspiration little above their present level of performance, raise it after success and lower a little after experiencing failure. Abnormal people and people dominated with excessive fear of failure set their future goals either unrealistically too high or low.

**Unit VIII  
PERSONALITY**

Concept and Nature of Personality, Definition
Meaning & Characteristic of Integrated Personality
Type Approach to Personality: Sheldon, Kretschmer,
Type Approach to Personality: Jung
Trait Approach to Personality: Cattell, Eysenck's type cum trait approach
Projective Techniques: Rorschach,
Projective Techniques: Thematic appreciation, Sentence Completion
Projective Techniques: Story Completion, Word Association, Draw a Person.
Non-Projective Techniques: Subjective (Case History, Autobiography)
Non-Projective Techniques: Subjective (Questionnaire, Interview)
Non-Projective Techniques: Objective (Personality Inventories, Observation, and Anecdotal Record)
Non-Projective Techniques: Objective (Rating Scale, Checklist, Socio-gram, Situation Test)

## Concept and Nature of Personality

The origin of the term personality can be traced back to the Latin term 'Persona' – a mask used by Greek actors while staging a play in bygone days.

### Definition of Personality

**J B Watson (1924):** "The sum of activities that can be discovered by actual observation over a long enough period of time to give reliable information."

**Eysenck, H J (1947):** "A stable and enduring combination of a persons various physical and mental aspects."

**Cattle R B (1967):** "Personality is that which permits a prediction of what a person will do in a given situation."

### **Meaning of Integrated Personality**

Self-actualized personality, emotionally and socially mature individual, well adjusted personality, integrated personality are all almost synonymous. A person who has realistic assessment of himself, his strength and weakness, has a stable self-concept involving a higher level of self-esteem and fewer feelings of inadequacy and fewer evidences of compensatory behaviour and accepts himself, leading to himself being accepted by others.

### **Characteristic of Integrated Personality**

According to *Skinner* the following are the characteristics of integrated personality,

- Harmonious development of thoughts, feelings and intentions to activity, affection, sympathy and a desire to cooperate with other.
- Confidence in one's abilities as well as awareness of one's weakness.

According to *Allport* characteristics of integrated personality are:

- Self extension: have a clear life values and believe them personally and be involved in such values
- Self objectification: able to evaluate oneself without any bias.

### **Type Approach to Personality:**

#### **Sheldon**

Dr. William H Sheldon, an American Surgeon, classified human beings into three broad categories of physical dimensions and their corresponding temperamental characteristics. The three personality types are:

- a) **Endomorphic** (round, fat and soft); viscerotonia (personality type) implies love of leisure, desire for enjoyment, desire for food and sleep, interest in child-hood experiences, insecure, amiable etc.
- b) **Ectomorphic** (delicate, lean and linear body build); cerebrotonia (personality type) implies disciplined behaviour, ready response to stimulation, lack of interest in social interactions, hypersensitivity to pain etc.
- c) **Mesomorphy** (hard and muscular); somatotonia, (personality type) implies adventurous, likes strenuous exercise and cold showers, dresses informally, withstands pain easily and willingly.

#### **Kretschmer**

Ernest Kretschmer, a German Psychiatrist refers to three broad types of human personality based on bodily build.

*Aesthetic:* they are thin, long limbed, narrow chested, weak or sick, lacking in strength with debility.

*Pyknic*: they are short limbed with large head, fat and barrel chested, their face is soft and broad hands and feet. They are jovial, lively, outgoing with fluctuating moods.

*Atheletic*: they have strong muscular body build, wide chest and shoulder, large hands and feet.

Aesthetic and Atheletic types of body build go with introverted and Pyknic type goes with extroverted personality.

### **Type Approach to Personality: Carl Jung**

He introduced the concept of *Extrovert* and *Introvert*. Both are opposite to each other.

*Extrovert* : readily susceptible to external stimulation, likes to get deeply involved in social activities, not bothered by outside criticisms, displays emotions openly, is less worried about failure and lacks the power of self-criticism.

*Introvert* : immersed in his own thoughts, memories and imaginations and is indifferent to social situations. He often tends to conceal his emotions, is highly sensitive to criticisms and deeply upset by failure. He is invariably self-centered.

### **Trait Approach to Personality:**

#### **Cattell**

He studied about 4000 traits and identified 12 independent and 4 partially independent traits or factors after a study and they are bipolar in nature. The factors of personality are mentioned in his 16 P.F tests of personality designed by him. Cattell noticed that some traits can be observed directly in an individual's behaviour and are called '*surface traits*'. He also observed certain qualities are organized at a deeper level to form a particular trait which can't be directly observed but are expressed through the surface traits in an indirect manner, known as '*source traits*.' For e.g. if the feeling of insecurity is a source trait. It cannot be directly observed. But it may express itself through surface trait, such as general restlessness, timidity, high emotionality etc.

Genial hostile; intelligence - stupid; emotionally stable - changeable; dominant -submissive; cheerful - unhappy; sensitive - hard boiled; thoughtful - boorish; conscientious - slipshod; cooperative - reserved; vigorous - slack; hypersensitive - phlegmatic; friendly - suspicious.

### **Eysencks type cum trait approach**

He provides a hierarchical type approach to personality. He describes three basic categories of personality at top of the hierarchy.

Extroversion - introversion; neuroticism - stability; psychotism - normality.

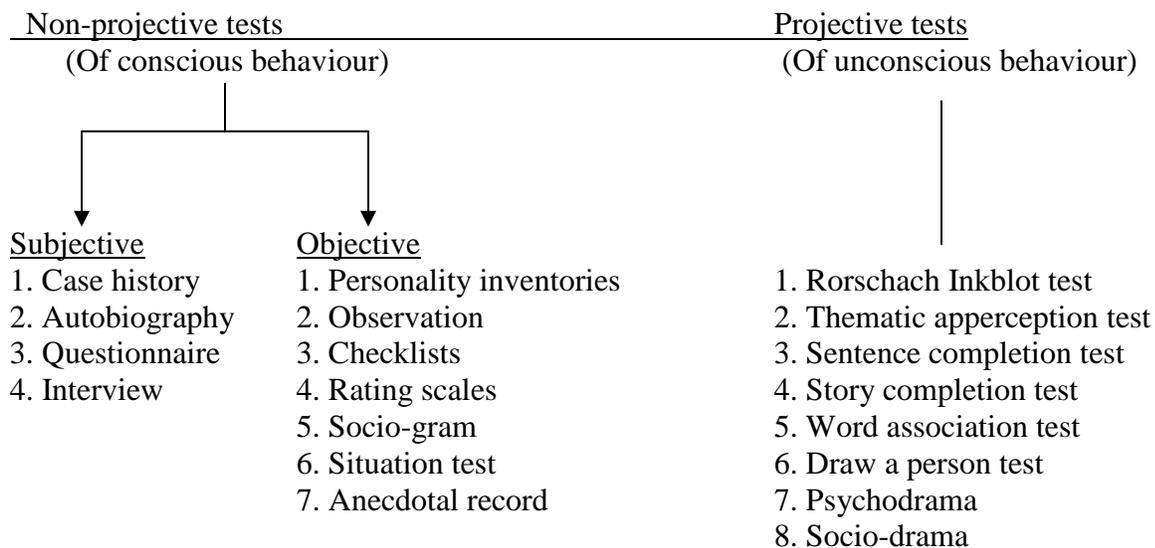
These have been reduced to two dimensions namely, stable – unstable, and introversion – extroversion. Each of these categories involves certain qualities at the next lower or trait level and the traits in turn associated with next habitual response level. The last is the specific response level which applies to specific tasks in which also the traits involved in the categories would be expressed in diverse degrees. Eysenck's approach is hierarchical with the top indicating types and lower traits.

- a) Type level in personality
- b) Trait level
- c) Habitual response level
- d) Specific response level

The above is in sequential order and hence this theory is also called as type cum trait approach in personality.

## Assessment of Personality

**Personality is not made up of one trait or the other. It includes physical, mental, emotional, social and moral behaviours both at conscious and unconscious levels of mind. To assess unconscious personality projective tests are used and to assess conscious behaviours non-projective tests are used. There are number of techniques in each category getting information from the person himself or from others about the person.**



### **Non-Projective Techniques: Subjective**

#### Case History

Past developments and adjustments of the person are enquired. Data is collected about the parents, forefathers, family traditions, family atmosphere, size of the family, the attitude of members of the family towards the subject, attitudes of parents towards the birth of the person, nature of delivery etc. History of physical disease, mental shock, death in family and reaction, transfers, and migrations of family, relatives, friends, teachers and other associations.

#### Autobiography

Subject himself gives his own story of life. He says or writes all the important events, experiences, adventures, interests of his past life. He also gives his parents aims, ideas and activities. It is the actual record of his past and the present life. As he writes from his memory it may exaggerate his qualities, conceal his drawbacks or weaknesses, rationalize and defend his wrong actions, and he may put responsibility on others. But it can be supplemented by other techniques.

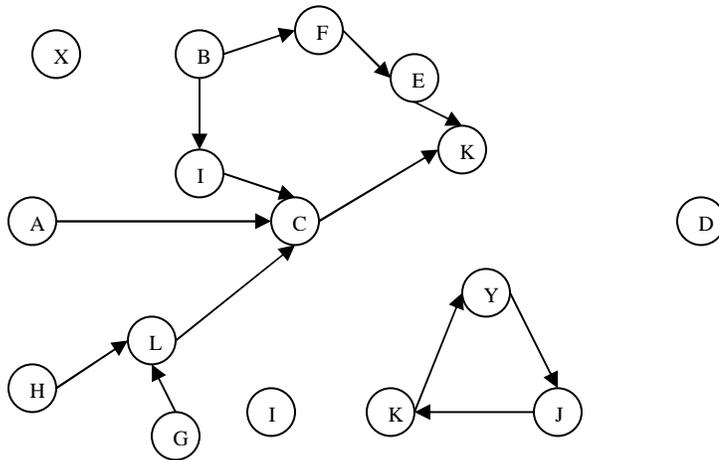
### **Questionnaire**

A questionnaire is a series of questions or statements which describe certain emotions, traits, attitudes or behaviour in situations revealing personality. Against each statement, alternatives are given. The subject ticks the suitable alternatives. This is a closed form.

Open form of questionnaire consists of questions to which the subject has to answer freely indicating his opinion. Any questionnaire is to fulfill a definite purpose, with definite direction, simple in language and of reasonable length and with ease and clarity to tabulate and interpret.



whom he would like to play, or would like to study or would like to go on a picnic or would like to visit during vacation and so on.




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### **Situation test**

A person is observed in a group situation and conditions. What a person does in a pre-arranged situation and how he does it, are the matters of observation. In some of these tests one way screen is used so that the observer is not noticeable to the persons in the the group.

### **Anecdotal record**

It is an informal device used by the teacher to record behaviour of students, a significant episode in class or life. It is a written description of a specific incident which the teacher has observed. It furnishes multiple evidences for a good cumulative record maintained for the persons. It stimulates teachers to record the pertinent information to realize about any person.

### Projective techniques of personality

No two persons see the same thing in that picture. If the picture being vague arouses different associative lines in different people. So we give expression to our own inner perceptual and associative organization. Principles of projective technique is that an individual reveals himself very frankly because he does not know that he is revealing himself. Actual experimental observations make us accept these tests as the best indicators of our personality.

The three important types of projective techniques are

Perceptive (Like Rorschach ink blot test where subject is to report what he perceives of the stimulus presented)

Appreceptive (Here the subject goes beyond what he perceives and offers instead an elaborate story. E.g. TAT.

Productive (These relay on the performance of the subject like what he draws, what object he makes of plastic clay, how he plays a role etc.)

### Rorschach Ink Blot Test

Rorschach, the Swiss psychiatrist found that irregular ink blots could be used to bring out personality characteristics of different individual.

#### The composition of the tools

Ten Cards out of which five are colour and remaining five or black and gray shades

The subject is shown these cards one after another and asked to say what he sees in them.

Based on subjects reply interpretation of the responses and given. A difficulty is that advanced knowledge of psychology is needed for proper interpretation.

### **Scoring and Analysis of responses**

Objective scoring of the responses are done based upon three aspects 1.location 2. determinants 3. contents.

Location : refers to the particular part of a blot to which a single response refers. Some of the common symbols used in this connection are:

W = Whole blot area.

D = Large common detail

D = Small common detail

S = White space

Other details regarding the size, actual location such as inside edge etc. are also marked with different symbols.

Determinants : By a determinant is meant the particular aspect of the blot which directs the perceptual activity. The common determinants are:

M = Movement; F = Form; C = Colour; K = Texture or surface appearances

Content : It refers to the actual meaning of the word. The common symbols are :

H = Human figure; A = Animal figures; Hd = Human details; Obj = Man made objects; Pl = Plants; At = Anatomical details.

Intellectual activity is mostly indicated by F,W,D etc. the externalized emotions are indicated mostly by C or combinations like C,F and K responses. The internalized emotional life is a very complex process. Only a clinical psychologist could use Rorschach Ink-Blot Test. The test is highly useful in psychiatry.

### Thematic Appreciation Test

This was developed by American psychologist, H A Murray.

#### The composition of the tools

Thirty cards mostly of actual beings depicting a particular situation. Out of 30 cards 10 are common for both male and female subjects. Ten are meant for male and another 10 for female. One another empty card, the subject has to make the story at the end.

Procedure: the subject is asked to perceive it. He is asked to describe as to what is happening at the present moment, as to what led to the present position and as to what it is likely to lead to later on. While constructing the stories usually the individual identifies himself with one of the characters in the picture, thereby projecting on to them, his own feelings, urges, desires and anxieties. The TAT responses are interpreted by analyzing the recurring themes in the stories.

### **Sentence completion test**

<b>Meaning and importance of Mental Health</b>
<b>Meaning and Characteristics of Adjustment</b>
<b>Characteristics of Maladjustment and its causes</b>
<b>Frustration - Concept of Conflict &amp; Defense Mechanism</b>
<b>Mental Health of Teacher and taught and Adjustment in School</b>

The subject has to complete the incomplete sentences. The following types of sentences may be found in those tests.

The sight of ..... My greatest .....  
 I feel ..... women .....

Eg: Rotter' incomplete sentence test

### **Story Completion**

The task of the subject is to complete the story when the unfinished plot is given.

### **Word Association test**

To detect one's inner conflicts, attitudes, aversion etc., with reference to specific persons or situations, the list of stimulus words are presented to the subject to elicit a response for each one. If a particular word evokes an unusual response or a delayed response or repetition of the stimulus-word itself, it might indicate some deep seated motive or complex.

### **Psychodrama**

Individual has to play a role spontaneously in a situation. His behaviour is observed by trained observers. This technique is used to assess the personality of maladjusted persons. The director or therapist plays an important role in organizing situations in which the subject may express his bottled up emotions. The central principle of psychodrama is spontaneity of the individual.

### **Sociodrama**

Individual has to play a role along with a group in a situation. Trained observers observe his behaviour in terms of socialization and adaptation. This technique is used to assess the personality of maladjusted children as well as pupil who have behavioral problems.

## **Unit IX**

### **MENTAL HEALTH AND ADJUSTMENT**

#### **Mental Health**

**Hadfield**, "Mental health is the full and harmonious functioning of the whole personality."

A mentally healthy person lives a, "fuller, happier, harmonious and effective life."

#### **Mental Hygiene**

Mental hygiene consists of measures to reduce the incidence of mental illness through prevention and early treatment and to promote mental health.

#### **Adjustment**

Herbert Spencer defined life 'is the continuous adjustment of the internal to the external relations.'

#### **Definitions**

**Symonds (1933)**: "adjustment is a satisfactory relation of an organisation to its environment."

**Ruth Strong (1949)**: "Adjustment is a process and not a state."

### Characteristics of Adjustment

Adjustment of a person is based on the harmony between his personal characteristics and the demands of the environment of which he is part. Personal and environmental factors work side by side in bringing about this harmony.

- He denies himself the privilege of satisfying immediately some of his needs like adolescents sex need.
- He perceives the difference between socially acceptable and unacceptable goals that prompt to satisfy his needs and to choose the socially acceptable goals in majority of the cases.
- Varies his behaviour in a reasonably sensitive way to the demands and potentialities of his environment.

### **Frustration**

**Carrol, H A** says, "Frustration is the condition of being thwarted in the satisfaction of a motive."

**Good Carter, V** says, "Frustration means emotional tension resulting from the blocking of a desire."

**Kolesnic, Walter, B**, says, "Frustration is the feeling of being blocked or thwarted in satisfying a need or attaining a goal that individual perceives as significant.

### **Mental conflict**

#### **Definition**

Psychologically conflict is a state of tension brought by the presence in the individual, of two or more opposing desires.

L F Shaffer says, "Conflict is a state of affairs in which two or more incompatible behaviour trends are evoked that can not be satisfied fully at the same time."

### **Causes of Conflict**

- When there is a big gap between one's aspired goals and his actual attainment.
- Attempting to satisfy two opposed and contradictory desires and wishes.
- When an individual gets suddenly separated from his primary social group, to join a secondary group, he is besieged with conflicts.

### **Types of Conflict**

#### **Approach – Approach conflict**

Individual is caught in a situation where he must choose between two or more positive goals almost equally motivating and important. E.g. Choosing between engineering & medicine.

#### **Avoidance – Avoidance conflict**

Individual has to choose between two negative courses of action. E.g. A student who has not completed his homework may fear punishment awaiting in the school; if he does not go to school he may be punished by parents. He is in conflict as he is unable to decide which of the two, to be avoided.

#### **Approach – Avoidance conflict**

Individual encounters a choice between positive and negative goals. E.g. A T.B. patient is advised by doctor to give up smoking, through smoking gives immediate pleasure to him, ultimately hasten his death.

### **Defense Mechanism**

Defense mechanism enables a person to 'resolve the conflict and reduce stress and anxiety associated with it.' They act as shock absorbers to help the individual maintain

internal balance and live comfortably when more adaptive measures to resolve the conflicts are not available to the individual. But this has to be used judiciously as else leads to mental ill-health and variety of undesirable and antisocial behaviour. There are about 65 different types of defense mechanism which psychologists have classified. Let us discuss some of them here.

### **Rationalization**

Plausible reasons (Reasonable excuse) for our impulsive actions rather than placing true / real reasons. E.g. a teacher, who was not selected for principal post, may say he is happy that he was not selected since he could not dance to the tunes of the management.

### **Projection**

It is the tendency to force on another person, one's own unrealized frustrated ambitions. E.g. student says everyone is copying in the examination, and justifies his own actions.

### **Identification**

Enhancing one's feeling of personal worth through identification of one's self with an illustrious person or institution. E.g. taking a photo with Rajini and showing it to friends and giving herself in nursing profession or in social work. says, I know him. (Hero worship).

### **Compensation**

Individual makes attempts to overcome weakness or limitations by drawing attention to a strong or favorable characteristic. E.g. a girl who is less average in studies tries to gain recognition by her good look.

### **Sublimation**

Individual unable to have his urges or impulses gratified might engage himself in substitute activities which may satisfy. These substitute activities when they are socially valued and acceptable, they are called sublimation. E.g. a woman who could not get married and have children, may find engaging herself in a nursing profession.

### **Withdrawal**

Individual tends to withdraw himself from the situation that causes frustration or failure. E.g. if an athlete finds his chance of success in a competition is dim, then he stays out of it on the pretext of injury.

### **Fantasy**

In day-dreaming or fantasy an individual allows his mind to wander aimlessly among pleasant imagery, gratifying wishes and desires that are ungratified in real life. What he could not achieve in real life, he accomplishes in his world of fantasy. E.g. a low achieving student may dream that he has come first in the university ranking.

### **Regression**

Individual retreats to or adapts infantile or primitive forms of behaviour. It includes behaviours learned in childhood as well as simpler and intellectually inferior types of responses in solving problems. E.g. creating a scene of threatening to leave home and refusing to speak are common regressive behaviours.

### **Displacement**

One particular motive or emotion is turned from its natural object to some other object that is in no way connected with the normal and natural one. E.g. father angry with boss comes and vents his anger on his wife/children.

### **Suppression**

A simple escape from distressing situations is to forget them. This forgetting is selective. It is intentional and forcible avoidance of painful tendencies and distressing circumstances and

memories from the field of consciousness is called suppression. E.g. a girl who met with accident, will try to concentrate on something else consciously and hence tries to forget the accident from her consciousness.

### **Repression**

The aim of repression is the removal of all mental conflict. Painful memories, distressing experiences, and thoughts are pushed from the conscious mind to unconscious mind and they are not allowed to re-enter into the conscious mind again. This process is unconscious. E.g. a person forgets the memory of the accident unconsciously and if he can not recall it even with conscious efforts, then it is a case of repression.

### Characteristics of Maladjustment

- **Un-social ness**
- Suspiciousness
- Depression
- Unhappy
- Fearfulness

### Causes of Maladjustment

*Physical Conditions:* Physical weakness, handicaps, diseases etc. affect the academic and social development of children.

*Psychological factors:* security, feeling of adequacy and sense of belongingness are inadequately satisfied.

**Broken home:** death of parents, separation, physical or mental handicap of parents' emotionally unstable parents etc.

Attitude of parents:

**Social conditions:** e.g. adolescents look forward to economic independence, peer groups etc.

**School environment:** teachers, peer groups, functioning of school etc.

### Mental Health of Teacher and taught

According to **Norma E. Cutts and Nicholas Prosely**, "Mental health is the various strains of the environment, we meet in life and mental hygiene as the means we take to assure the adjustment."

### **Mental health of teacher**

Good knowledge of

- **subject**
- Teaching capacity and willingness to teach effectively.
- Ability to take up responsibilities and fulfilling them with maximum involvement.
- Ability to work in groups of teachers etc
- Alertness, enthusiastic approach in classroom activities.
- Ability to maintain natural, friendly and pleasant relations with the school personnel
- Emotional balance, missionary zeal and involvement, self-learning and self-disciplined.
- Kindness, patience, sympathy, fairness in dealing with pupils-slow learners or intelligent.
- Dynamic, democratic, realistic and creative approaches in teaching-learning change him from the teacher stereotype.

## Mental health of students

Group Dynamics and Teacher's Role
Properties of Human Group, and Types
Characteristics of class as a group Sociometry, Socio-gram, and helping an isolate
Concept of Guidance and Counseling
Training for leadership and Educational, Vocational & Personal Guidance.
Directive Counseling
Non-Directive Counseling and Eclectic Counseling

Good mental health is obtained and maintained by helping pupils to overcome serious conflicts and frustrations. They are to be helped to understand their own potentialities, abilities, aptitudes, interests and the environmental conditions such as harmoniously at an optimum level of functioning.

Ways to promote mental health are

- Close personal relationships
- Inter-personal skills
- Social participation
- Satisfactory work and recreation
- Healthy outlook and life goals.
- Participation in variety of activities.
- Possession of generally positive and constructive attitudes
- Sensitivity to the feelings of others
- Hopefulness, genuine interest in others.

### Adjustment in School

1. Adjustment in physical development
2. Adjustment to academic life
3. Social adjustment
4. Emotional adjustment
5. Exemplary morality to the age level
6. Adjustment to co-curriculum of school

## **Unit X**

### Group Dynamics

#### Group Dynamics

Man is born into a social world of persons and groups; lives and moves as a member of a social group; satisfies most of his fundamental needs through group, also feels acute frustration from these groups and transforms his nature influenced by the people or influences others.

#### Definition

#### Kinball Young

It is not a mere aggregate of individuals such as are enumerated in a census report but it is an association of persons with some degree of give and take i.e., inter-stimulation and response among the members.

### Properties of Group

1. Members of a group are aware of the presence of each other and respond to each other. They have the sense of accommodation and togetherness; their behaviour is determined by this feeling.
2. Group are formed to need recurrent problems and satisfy recurrent needs of individuals.
3. They have common interests and common objectives.
4. They have high degree of solidarity and persistent group loyalty, sense of obligation, readiness to sacrifice for the group, sympathy, imitation, suggestion, and sense of devotion.

### Group Dynamics

Dynamics, means force. Group dynamics refers to forces operating in the groups; the factors and conditions that give them that particular structure and functioning in relationships among the members of the group. Group dynamics is related to the field theory of Lewin.

### Teachers role

1. Teacher has to understand the classroom as a unit behaving in the classroom context, which is shaped by many forces.
2. These forces may be statutory requirements of the institution, the rules of the institution.
3. Cultural factors and social customs of the community..
4. Teacher has to prepare pupils of different levels to learn and to be motivated in learning when they are in class.
5. Has to relate class groups with other groups outside or inside to foster interactive abilities.
6. Encourage individual efforts and see that they are discussed in small groups to generate ideas with regard to every body's work.
  - a. Buzz sessions: Stimulate discussion a small group of five or six students discuss over a topic within the purview of classroom.
  - b. Brainstorming: To allow for free flow of possibilities with regard to any issue without any fear of evaluation.
  - c. Role play: Students enact a situation where they handle a problem form different perspective to create new perceptions in the members of the group.
7. Teacher facilitates change in group structure and functioning depending on the necessity of the situation and requirements of students to improve the functionality of the members.
8. While planning, the suggestions flow from different members. These have to be discussed logically to suit the situation to enhance democratic spirit among the members of the group.

### Definitions

#### Cart Wright, D and Zhandee, A

“It is defined as a field of inquiry dedicated to advancing knowledge about the nature of groups, the laws of their development, and their interrelationships with individuals, other groups and larger institutions.”

#### Krech and Crutchfield

“Change that take place within the group”

### **Sociometry**

It the way of measuring the socio-gram. It talks about the process and procedure to be followed in analysing social grouping patterns and social attitudes etc.

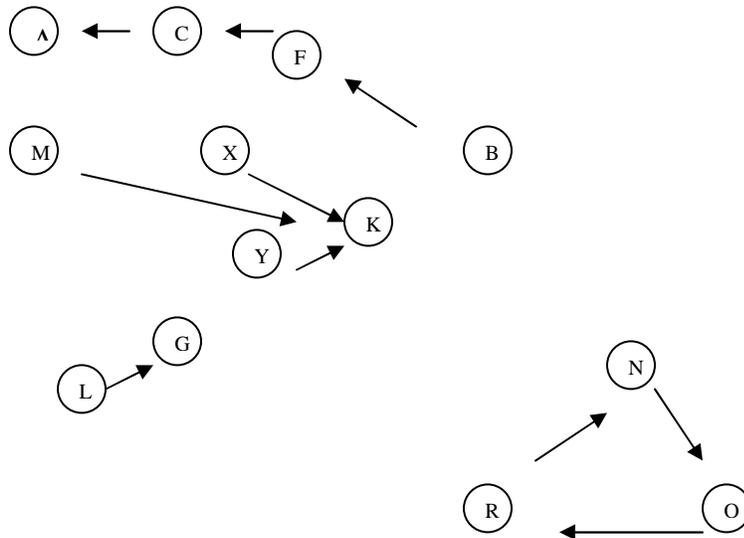
**Socio-gram**

It gives very rough and ready manner of getting a working knowledge of the social structure of the class. Each child in a classroom may be asked to mention the name of another child with whom he would like to play, or would like to study or would like to go on a picnic or would like to visit during vacation or would like to share his experience and so on. For each of these aspects of life different socio-grams can be drawn.

First and second choice can be asked for.

Example

**Helping an isolate**



A person who has lot of friends and gains lot of attention is called a ‘star’.

A person who has limited friends and doesn’t mix with the crowd and is always seen alone is called an ‘isolate’.

**Helping an isolate**

An isolate person need proper guidance and support. He needs to be given attention and should be helped to make friends and the teacher has to be careful not to harm him as he will in general be very moody and low in self-esteem and confidence. Sufficient opportunities and encouragement needs to be continuously be given to help him overcome his social interactions.

Concept of Guidance and Counseling

**Definition**

Andrew and willey: “Guidance refers to organised group of services established for the purpose of assisting each student to attain his maximum potential development and adjustment”.

**Carl M Morns**

“Guidance is the process of assisting the individual determining, analyzing and understanding his capacities, problems and needs in the light of their knowledge helping him to make wise choices and adjustment.”

**Mathewson**

Guidance is educative and developmental with emphasis on systematic learning process.

**Bearnard and Fullmer**

Guidance and counseling are designed to enhance growth processes and sometimes to interrupt self-defeating behaviours which would seem to impede optimum self-realisation.

### **Crow and Crow**

“The fundamental of all guidance is the help or assistance given by a competent person to an individual so that the latter may direct his life by developing his point view, make his own decisions and carry out those decisions.”

### Principles of Guidance

According to Gilbert Wrenn and Willis Dugan, the following are the important principles of Guidance:

- Guidance is connected with the ‘whole’ student and not with his intellectual life alone.
- Guidance is concerned with all students, not only with ‘special’ or ‘problem’ students. I.e. guidance is universal.
- Guidance is concerned primarily with prevention rather than cure.
- Guidance is more than just the activity of a specialist; it involves the whole school staff.

### Types of Guidance

The primary function of guidance is that, an individual is helped to understand his assets and liabilities, his strengths and weakness in that context. Hence guidance has many classifications. Educational guidance, vocational guidance, personal guidance, leadership guidance etc.

1. Educational Guidance
2. Vocational Guidance
3. Personal Guidance

### **Educational Guidance:**

#### Definition

**Authur J Jones**, “Educational guidance is concerned with assistance given to pupils in his choices and adjustments with relation to schools, curriculum, courses and school life.”

**Ruth Strong**, “Educational guidance is intended to aid the individual in choosing an appropriate programme and in making progress of it.”

### Vocational Guidance

#### **Definition**

**Meyers**, says vocational guidance is a form of human conservation which is aimed at wise use by the individual of priceless native capacity and the results of costly training provided by the school for the good of the individual and of society.”

According to **National Vocational Guidance Association – USA**, Vocational guidance is the process of assisting the individual to choose an occupation, prepare for it, enter upon and progress in it. It is concerned primarily with helping individuals make decisions and choices involved in planning a future and building career decisions and choices necessary in effecting satisfactory vocational adjustment.

### Personal Guidance

It is defined as, “the assistance offered to the individual to solve his emotional, social, ethical and moral as well as health problems.” Personal guidance does not exclude social life of the individual. Problems of the individual social health, emotional and social adjustments, economic and social relationships etc. have place in it.=

### Counseling

#### **Types of counseling**

There are three types of counseling they are as follows

### **1) Directive counseling**

It is where the counselor plays a major role and hence it is known as counselor centred method. The counselor helps the counselee to make decision in keeping with his diagnosis. He tries to direct the thinking of the counselee by informing, explaining and interpreting and suggesting. E.g. doctor treating patient.

#### **Steps in directive counseling**

Analysis, synthesis, diagnosis, prognosis, counseling, and follow up.

#### **Limitations**

- The counselee always depends upon counselor
- No scope for fresh learning

**Scope:** this method is useful to treat young children and seriously disturbed persons.

### **2) Non-directive counseling**

Carl R Rogers is the chief exponent of this method. Here the counselor's role is passive. It is the client or counselee centred method. Counselee takes active part in the process of therapy. He gains insight into his problems with the help of counselor. The counselee is made aware of the fact that the counseling situation does not have the answers but it provides opportunities to solve his problems himself.

#### **Limitations**

- The passive attitude of the counselor might irritate the counselee and he may become reluctant to express his feelings.
- It is time consuming

### **3) Eclectic approach**

Eclecticism in counseling has more than one meaning. One concept is the counselor chooses the approach he will use for a particular counselee. His approach involves a unique combination of procedures for each individual with whom he works. His selection of directive or non-directive approach depends on the appropriateness of the technique at a given time for a particular individual. F C Thorne popularized this approach in which at the initial stage directive counseling is followed and followed by non-directive method.