Farook Training College Innovative Academia (FTCIA)

Online Collaborative Learning Project (OCLP)

Study Materials.

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The entire materials are prepared by the M.Ed students (2020-22) of Farook Training College, Calicut, Kerala.

It is expected that this will be a support for those who need simplified, concise but comprehensive study materials for their examination preparation. It is a smart footstep to self learning and peer learning.

A note of appreciation to all student teachers who are the workforce behind this great endeavor.

Team OCLP

FTC

MED 02

PSYCHOLOGY OF LEARNING AND DEVELOPMENT

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MODULE 1

THE SCIENCE OF PSYCHOLOGY

-Arya Balakrishnan

Origin

- The word psychology comes from two specific Greek words “psyche” which means soul ,life or mind and “logia” which means the study of .
- So psychology means study of mind, soul

Meaning

- Psychology is the scientific study of the mind and behaviour, according to American Psychological association.
- Psychology is a multifaceted discipline and includes many sub-fields of study such areas as human development, sports, health, clinical, social behaviour and cognitive processes.

Definition of psychology

- Psychology is the science of activities of individual in relation to the environment - Woodworth
- Psychology is the science of mental activity of an organism - Guilford
- Psychology is the scientific study of the behaviour of human and animals - Dr. R. Hamm

Evolution Of Psychology

- **First stage:** Defined as “study of soul”-mysterious and philosophical concept (Plato, Aristotle)

- **Second stage :** Defined as the “study of the mind”-Ancient Greek philosophers (German philosopher Immanuel Kant)

Third stage: Defined as the “study of consciousness” - William James in his principle of psychology (1890)and William Wundt(first psychological laboratory) Edward Bradford Titchier

Fourth stage : Defined as the “study of behaviour”-William Mc Dogall in 1905 and JB Watson in 1913

Goals Of Psychology

- **To describe**

Identifying and classifying behaviours and mental processes accurately as possible

- **To explain**

Proposing reasons for behaviours and mental processes

- **To predict**

Offering educated guesses(or hypotheses) about how a given condition or set of conditions will effect behaviours and mental processes

- **To influence**

Using the results to research to solve practical problems that involve behaviour and mental processes.

Scientific Characteristics Of Psychology

Empirical Evidence

- Empiricism (founded by John Locke) states that the only source of knowledge comes through our senses
- It refers to data being collected through direct observation or experiment.
- It does not rely on argument or belief. Instead experiments and observations are carried out carefully and reported in detail so that other investigators can repeat and attempt to verify the work

Objectivity

- Researchers should remain totally value free when studying; they should try to remain totally unbiased to their investigators
  i.e, researchers are not influenced by personal feelings and experiences.
- Objectivity means that all sources of bias are minimized and that personal or subjective ideas are eliminated.

- The pursuit of science implies that the facts will speak for themselves, even if they turn out to be different from what the investigator hoped.

Replication

- This refers to whether a particular method and finding an be repeated with different /same people and/or on different occasions, to see if the results are similar.

- If a dramatic discovery is reported, but it cannot be replicated by other scientists it will not be accepted.

Continue….

- If we get the same results over and over again under the same conditions, we can be sure of their accuracy beyond reasonable doubt

- This gives us confidence that the results are reliable and can be used up to built a body of knowledge or theory : vital in establishing scientific theory.

Predictability

- Able to predict future behaviour from the findings of our research
- Introspection was used, but systematically (i.e methodologically)
- It was really a place from which to start thinking about how to employ scientific methods to investigate behaviour.

- Objectivity is impossible

- Verification (ie proof) may be possible

Control

- All extraneous variables need to be controlled in order to be able to establish cause and effect.

- Hypotheses testing , i.e, A statement made at the beginning of an investigation that serves as a prediction and us derived from a theory .

- There are different types of hypotheses (null and alternative), which need to be stated in a form that can be tested (i.e, operationized and unambiguous)

Testability

- Much of the subject matter in psychology is unobservable(e.g , memory) and therefore cannot be accurately measured .

Approaches to study Human behaviour :

- Structuralist Approach
- Functionalist Approach
- Behavioursit Approach
- Cognitive Approach
- Gestalt Approach
- Psycho-analytic Approach
- Socio-cultural Approach
- Humanist Approach
- Neuro-Biological Approach

Structuralist Approach

- William Wundt (1832-1920), a German Psychologist
- He opened worlds first psychological laboratory in Leipzig
- The main purpose of psychology was to describe the mental structure by adopting Introspection as main technique
- The main task of Psychologist was to discover the elements like images, sensations, emotions, affections etc.
- E. B. Titchner was a student and the founder of structuralism

Functionalist Approach

- William James (1842-1910), American Psychologist felt structuralism was too limited
- Understands how the mind functions in every day life
- He studies not only observation, but how mental processes, emotions, self concept worked to influence behaviour
- Psychology of the total relationship of organism to environment including all mind - body functions

Behaviourist Approach

- John. B. Watson is the chief exponent
- Overt Behaviour is the only thing we can observe
- Behaviourist tried to reduce all human activities including thinking, feeling etc. to level of observable behaviours
- Behaviourist studies an individual by looking at his behaviour rather than his internal workings
- 'Stimulus response connection' was the key term
- Deterministic and objective like most of the physical sciences and natural sciences.

- S-R psychology studies the stimuli that elicits behavioural response
- Rewards and punishment maintains these responses and the modifications in behaviour obtained by changing the patterns of rewards and punishments
- It is not concerned with what goes on inside the organism
- Theory of learning can be developed by observing how learned behaviour varies with environmental conditions
- Strict S-R approach does not consider an individual conscious experience (experiencing person is fully aware)

Merits of Behaviourism

- Highlighted the role of environment
- Highlighted the role of motivation
- Introduced scientific method for studying behaviour based on objective observation
- It was helpful in dealing with Abnormal behaviour
- It extended psychology from man to animal
- It advocated the use of reinforcement and rewards
- Give way to programmed instructions and teaching machine

Cognitive Approach

- It is the result of intellectualism
- Internal processes are the subject matter of psychology
- Studies man's thinking, memory, language development, perception and other mental processes
- Jean Piaget, Jerome S Bruner, Edward C Tolman are the Cognitive psychologists
- They argue that we are not passive receptors of stimuli
- Mind actively process the information it receives and transforms it into new forms and categories

- Cognition refers to those mental processes that transform sensory input in to various ways
- It was developed partly in reaction to the narrowness of S-R view
- But S-R approach neglects too many interesting areas of human functioning
- People can think, plan, make decisions on the basis of remembered information

Merits of Cognitive psychology

- Rejects stimulus response approach
- Information processing is the key term
- Importance of mental, feeling and other mental processes
- Emphasises on higher mental process like problem solving, creativity etc.

Gestalt Approach

- Originated in Germany
- Max Wertheimer, kurt kofka, and Wolfgang Kohler
- Gestalt is a German word which means whole
- Individual perceive a thing as a whole

Behavioural processes into 3 stages :

*Perception of a situation as a whole
*Judging the relationship of various elements
*Sudden flash or insight

Psycho - Analytic Approach

- Sigmund Freud(1856-1939), the father of this movement
- Ideas like unconscious and subconscious mind and the concept of repression.
- Advocated the role of sex instinct and death instinct
- Anna Freud, Harry Sullivan, Eric Erickson etc. were known as neo Freudians
- Behaviour stems from the unconscious mind
- Manifestation - dreams, slips of speech(“Freudian slip”) or mannerism

- It is a method of therapeutic not based on experimental studies
- Influence on psychological thinking
- Basic assumption is that much of man's behaviour is determined by innate instincts that largely unconscious
- Unconscious processes are thoughts, fears, and wishes of which the person is unaware but which influence our behaviour
- Unconscious impulses find expression in dreams, slips of speech, mannerism and symptoms of neurotic illness

- Most psychologist do not completely accept the concept of unconscious
- Freud's view of human nature was essentially negative
- Merits of Psycho - analytic Approach
- It helps in the treatment of mental disorder
- It appeals to the teachers to be positive
- Brought out the need for early childhood education
- Throws light on the causes of mal adjustment and Abnormality
- It helps in the removal of bad habit and training in natural instinct

Socio-cultural Approach

- This approach emphasizes the influence of the society that we living on our learning process.
- According to the Socio-cultural approach, cultural factors such as language, art, social norms and social structures can play significant role in the development of our Cognitive abilities.
- Father of Socio-cultural approach was the soviet psychologist Lev Semyonovich Vygotsky (1896-1934).

- Cultural context should be considered.
- Comparing Behaviour across countries or within a country.
- Vygotsky proposed that interactions made by children can shape and influence both the way in which they perceive the world and their Cognitive processes.
- The way children learn and develop varies from culture to culture and is sometimes specific to each individual society.
- Vygotsky suggests 3 methods which are used to teach children skills.

- These tools are imitative learning instructed learning, and collaborative learning.
- A central tenet of Vygotsky studies is that children learn behaviour and Cognitive skills by dealing with experienced people.
- Key principles of Vygotsky‘s Socio-cultural theory.
- Development of child is contingent upon learning.
- Learning is a crucial part of Passing down culture ideas from parents to children.
- A person's language is crucial to their mental development.

- By doing so, child also acquires Cognitive skills that are specific to his or her culture.
- The Developmental progress of a child can not be considered without also taking into consideration the child's up bringing and social context.
- Children are capable of creating their own knowledge through experience and cultural tools.
- This knowledge is then referenced later on in life.

Humanistic Approach

- Self realisation is the root
- Give importance to human being
- Individual personal growth is the tendency for self actualization
- Person's behaviour is influenced by his/her environment
- Social interaction is the key in human environment
- People are aware about past experience
- Humans have free will to act, express, develop to make conscious choice

Neuro -Biological Approach

- The neurobiological approach is simply biological. Neurobiologist believes that actions and reactions caused are from nerve cells.
- They focus on perspiration such as tears, sweat, and physical movement in reaction to something else
- Brain and nervous system play central roles in understanding behavior, thought and emotions
- Concentrates on electrical and chemical activities takes place in brain

Branches of psychology

Pure psychology :

- General psychology
- Abnormal psychology
- Social psychology
- Experimental psychology
- Physiological psychology
- Para psychology

Applied psychology :

- Educational psychology
- Clinical psychology
- Industrial psychology
- Legal psychology
- Miltary psychology
- Political psychology

Meaning of Educational Psychology

- Educational psychology consists of 2 words Psychology and Education.
- While general psychology is a pure science.
- Educational Psychology is its application in the field of education with the aim of socializing man and modifying his behaviour
- It is which tries to apply the psychological principles, theories and techniques to human behaviour in educational situations.

Definition of Educational Psychology

- Skinner defines it as “Educational Psychology is the branch of psychology which deals with teaching and learning”

- Crow and crow defines it as “Educational Psychology describes and explains the learning experience of an individual from birth through old age”.

Scope of Educational Psychology

The learner

- The subject matter of educational psychology is knitted around the learner. Therefore the need of knowing the learner and techniques of knowing him well.

- It includes, the innate abilities and capabilities of the individuals, individual difference and measurement, the covert, overt conscious as well as unconscious behaviour.

The learning experience

- Educational psychology helps in deciding what learning experiences are desirable at what stage of the growth and development of the learner, so that these experiences can be required with a greater ease and satisfaction.

Learning process

- After knowing the learner and deciding what learning experiences are to be provided, Educational psychology moves on to the laws, principles and theories of learning.

Learning situation or Environment :
Here educational psychology deals with the environment factors and learning situation which come midway between the learner and the teacher. Topics like classroom climate and group dynamics, techniques and aids that facilitate learning and evaluation, guidance and counselling etc.

The Teacher :
The Teacher is a potent force in any scheme of teaching and learning process. It emphasizes the need of 'knowing thyself' for a teacher to play his role properly in the process of education. His conflicts, motivation, Anxiety, adjustment, level of aspiration etc.

Relevance of Educational Psychology in teaching and learning

- To understand the learner cause and effect of their behaviour, their attitudes, mental ability, their learning styles etc.
- It helps teacher to understand way of assisting them to solve their personal and learning problems and planning for their learning in an effective way
- To present the techniques and principles of learning and teaching

- It understands scientific methods and process of learning methods /teacher strategies etc
- It understands aims, nature and purpose of education
- To give knowledge of growth and development
- To make socialization in classroom
- To render guidance service
- To know the teacher himself

Module 2

Development Psychology

- Ashwathy A.

Developmental Task

- The task which help the individual for the successful adjustment in the society are known as developmental task
- Havighurst has given shape to a specific task model of development .
- According to him ,at each new stage of development there are certain tasks , skill, attitudes and understandings that must be met before a person can move on to a higher level of development

Developmental Needs of Various stages

- Physical maturation
- Cultural pressure of society
- Personal values and aspirations

Havighurst has identified six major age periods

- Infancy and early childhood
- Middle childhood
- Adolescence
- Early adulthood
- Later maturity

Developmental tasks

- Infancy &early childhood [0-5].
- Learning to walk.
- Learning to take solid foods.
- Learning to talk.
- Learning to control the elimination of body wastes.
- Learning sex difference and sexual mode sty.
- Acquiring concepts and language to describe social and physical reality.
- Readiness for reading.
- Learning to distinguish right from wrong and developing a conscience.

Middle child hood [6-12]

- Learning physical skills necessary for ordinary games.
- Building a wholesome attitude toward on self.
- Learning an appropriate sex role.
- Developing conscience ,morality and a scale of values.

ADOLESCENCE

Adolescence [13-18]

- Achieving mature relations with both sexes
- Achieving a masculine or feminine social role
- Accepting one's physique
- Achieving emotional independence of adults
- Preparing for marriage and family life
- Preparing for economic career

ADULTHOOD

Early Adulthood [19-29]

- Selecting a male
- Learning to live with a partner
- Starting a family
- Rearing children
- Managing a home
- Starting a occupation

Middle Adulthood[30-60]

- Helping teenage children to be come happy and responsible adults
- Achieving adult social and civic responsibility
- Satisfactory career achievement
- Relating to one's spouse as a person
- Adjusting to aging parent

Later Maturity [61 and over]

- Adjusting to decreasing strength and health
- Adjusting to retirement and reduced income
- Adjustment to death of spouse
- Meeting social and civic obligations
- Establishing satisfactory living quarters

Hazards

- Each phase of development has its hazards .each period in life span has associated with it certain developmental hazards and these inevitably involve adjustment problem .

- The way In which people cope with these hazards have a great effect on their personal and social adjustments.

GROWTH AND DEVELOPMENT

- Human beings keep changing. During their lives, they change in size, appearance and psychological makeup. The way they change differs from individual to individual. However, the fundamental underlying patterns of growth and development remain more or less the same and take place in un orderly way.

- Each individual, with his unique heredity and the way he is nurtured, determines the way he traverses the broad the broad highway of his life at his rate of progress.

- He will attain the size, shape, capacities and developmental status in a way, which is peculiar to him at each stages of life. In this unit, we shall discuss the concept, principles and various stages of growth & development.
- Children differ in physical, cognitive, social, and emotional growth patterns. They also differ in the ways they interact with and respond to their environment as well as play, affection.
- Having an understanding of the sequence of growth and development prepares teachers to help and give attention to all the children.

GROWTH

- Growth refers to quantitative changes in size, which include physical changes in height, weight, size, internal organs, etc.
- As an individual develops, old features like baby fat, hair and teeth, etc., disappear and new features like facial hair are acquired.
- When maturity comes, the second set of teeth, primary and secondary Sex characteristics, etc., appear.
- Similar changes occur in all aspects of the personality.

- During infancy and childhood, the body steadily becomes larger, taller and heavier.
- To designate this change the term growth is used. Growth involves changes in body proportions as well as in overall stature and weight.
- The term growth thus indicates an increase in bodily dimensions.
- However, the rate of growth differs from one part of the body to the other.

DEVELOPMENT

- Development refers to qualitative changes taking place simultaneously with quantitative changes of growth.
- It may be defined as a progressive series of orderly, coherent changes.
- The term progressive Signifies that changes are directional, that they lead forward rather than backward.
- Development represents changes in an organism from its origin to its death, but more particularly the progressive changes that take place from origin to maturity.

- Development may be explained as the series of overall changes in an individual due to the emergence of modified structures and functions that are the outcome of the interactions and exchanges between the organism and its environment.
- According to Crow and Crow "growth refers to structural and physiological changes while development refers to growth as well as those changes in behaviour which result from environmental stimulation".

Differnce Between Growth And Development

GROWTH	DEVELOPMENT
• Growth is quantitative.	• Development is qualitative.
• Growth is not a continuous process. It ends with the attainment of maturity.	• Development is a continuous process extending from womb to tomb. It does not ends with the attainment of maturity.
• Growth refers to structural and physiological changes • Growth is one of the aspects of the developmental process.	• Development refers to changes in the organism as a whole. • Development is a wider and comprehensive term. It refers to overall changes in the individual.
• Growth does not depends upon maturation or learning. • The changes produced by growth are directly observable and measurable. • Growth may or may not bring development.	• Development depends on maturation and learning. • The changes produced by development are not often directly observable and measurable. • Development is possible without growth.

ASPECTS OF DEVELOPMENT

The following are the major aspects which contribute to the total development of a child :

1) Physical and motor development
2) Cognitive development
3) Emotional development
4) Social development
5) Moral Development
6) Language development

Physical Development

- Physical development refers to the process which brings in the external as well as internal body organs of an individual which result in the increase of his physical skill and strength, from conception to death.

Cognitive Development

- The development of mental abilities and capacities which helps an individual to adjust his behaviour to the ever changing environmental conditions or to accomplish a task that needs complex cognitive abilities is referred to as intellectual or mental development.

Emotional Development

- Emotions is a conscious stirred up state of an organism. It is a product of perception. The core of emotion is feeling.
- Emotions are either positive or negative, pleasant or unpleasant.

Social Development

It refers to the process of development by which a child acquires the necessary attitude, values and skills that make him an acceptable member of the group to which he belongs.

Moral Development

- It is the development of moral concepts and moral behaviour.
- Child learn what is good and what is bad, what is right and what is wrong.

Language Development

- Language development refers to the process through which children acquire, or learn language.

PRINCIPLES OF DEVELOPMENT

1) Development is a product of interaction.
2) Development is a continuous process.
3) Development follows an orderly sequence.
4) Development proceeds from general to specific.
5) Different aspects of development are interdependent
6) Development is an individualized process
7) Each stage of development has its traits.
8) Development is cumulative.
9) Development is predictable.
10) Development depends on heredity and environment , maturation and learning.

STAGES OF DEVELOPMENT

1) Pre natal period (from conception to 280 days for birth)
2) Infancy (birth to 3 years)
3) Early childhood (3 to 6 years)
4) Later childhood (6 to 12 years)
5) Adolescence (12 to 19 years)
6) Adulthood (19 to 60 years)
7) Old age (beyond 60 years)

1.PRE NATAL PERIOD

- The child's development within the bombe is a very important phase of his end their development that development during this short period is not only very rapid but also orderly and predictable.
- Factors like mother's health food emotional experiences and certain desires are some of the factors which influence development during this period.

Psychologist have divided prenatal stage in three periods.

1. Germinal period (extending from the moment of conception to the end of the second week)
2. Embryonic period (extending from the end of the second week to the end of the second month.)
3. Foetal period (extending from the end of the second month until birth)

2.INFANCY PERIOD

- The first three years of the life of a child is the period of infancy.
- The first two week is known as the period of neonate or the New born the period from the third week to the end of three years is known as babyhood.

Developmental Characteristics of Infancy

Physical Development:

- The development of control and mastery over one's own body in both gross and fine motor skills is the infant's primary physical task , culminating toward the end of the first year in walking.
- The infant perfects the gross and fine motor skills that emerged during the first year by developing balance, coordination, stability, and an improved ability to manipulate object.

Cognitive Development:

- Cognition begins with alertness, awareness, recognition, and
- interest in visual, auditory, and tactile (touch) stimuli.
- As motor development improves, the infant begins to explore and manipulate objects and develops a rudimentary understanding of their properties.
- Infants develop object permanence toward the end of the first year. The emergence of symbolic thought is central to cognitive development. This results in the ability to understand and produce
- language.

Social Development:

- The most important social task is the development of attachment to the primary caretaker, most often the child's mother.
- The child develops affectionate and trusting relationships with other family members and with adults outside the family.
- The child can also be engaged in simple games and play.

Emotional development:

- The development of basic trust, between the infant and
- the primary caretaker, occurs during the first year. This is a cornerstone of
- emotional development.
- The primary developmental task involves the development of autonomy, which includes mastery and control over oneself and one's environment.
- Children develop a rudimentary self-concept, experiencing pride and pleasure at being "good" and embarrassment, shame, and distress at being "bad".

Language development:

- Language development of the infant begins from the birth
- cry. The 10 month old child is able to use one word. But by the end of the first year his vocabulary increases two three or four words.
- There is a positive correlation between intelligence and language development.

3.EARLY CHILDHOOD (preschool stage)

Early childhood is the preschool period between the ages of 3 and 6. It is also known as toy age, problem age , Pre gang age etc.

Developmental characteristics of early childhood

Physical Development:

- The child develops increased strength and uses motor skills to master challenges in the environment, such as bicycles, stairs, balls, playground equipment, eating utensils, crayons, and other objects.
- The child is developmentally ready to master toilet training. Most basic gross motor abilities have emerged.
- Existing skills are practiced and perfected, and the child develops mastery in applying motor skills to increasingly challenging and complex situations.

Cognitive Development:

- Perfection of language skills and the use of language
- to communicate with others is the principle cognitive task. Language develops rapidly.
- Grammar and syntax are refined, and vocabulary increases geometrically.
- The child uses language as a communication tool. Thinking is concrete and egocentric in nature.
- Problem solving is illogical and magical thinking and
- fantasies are prevalent

Social Development

- The child develops rudimentary relationships with other children, which are usually characterized by "parallel play," that is playing in the presence of, rather than in interaction with, other children.
- Children also begin to imitate social roles at this time.
- Toilet training represents a significant internalization of social rules and expectations.
- The child expands social relationships outside the family and develops interactive and cooperative play skills with peers.
- The child begins to understand, explore, imitate, and practice social roles.
- The child learns concepts of "right" and "wrong" and begins to understand the nature of rules.
- He experiences guilt when he has done something wrong.

Emotional Development:

- The preschool child has been described as "on the make.“ Erikson refers to the child's primary mode of operation during this stage as initiative.
- The child is intrusive, takes charge, is very curious and continually tries new things, actively manipulates the environment, and is self-directed in many activities.
- The child's ability to understand "right" and "wrong" leads to self-
- assessments and affects the development of self esteem.

Language development:

- There is a rapid increases in vocabulary. Words are combined into coherent phrases and sentences, and simple thoughts are communicated with ease.

4.LATER CHILDHOOD (primary school stage)

Later childhood spreads from 6 years to 12 years. Psychologists call this elementary school age as gang age during later childhood children's major concern is acceptance by their age maids and membership in a gang.

Developmental characteristics of Later childhood

- **Physical Development:**

The child practices, refines, and masters complex gross and fine motor and perceptual-motor skills.

- **Cognitive Development:**

Concrete operational thinking replaces egocentric cognition.
The child's thinking becomes more logical and rational. The child develops the ability to understand others' perspectives.

Social Development:

- Relationships outside the family increase in importance, including the development of friendships and participation in appear group.
- The child imitates, learns, and adopts age appropriate social roles, including those that are gender-specific.
- The child develops an understanding of rules. Rules are relied upon to dictate proper social behaviour and to govern social relationships and activities.

Emotional Development:

- The child is industrious, purposeful, and goal directed in her activities. She is confident and self-directed.
- The child is developing a better sense of herself as an individual, with likes and dislikes and special areas of skill. She is capable of introspection.
- The child evaluates her worth by her ability to perform. Self-esteem is largely derived from one's perceived abilities.

5. ADOLESCENCE (secondary school stage 12 to 19 years)

- It is the period from the onset of puberty to the age of maturity. It is a period of rapid physical and biological changes which may lead to confusion tensions frustrations and feelings of insecurity.
- Adolescence is known as the period of transition because during this period an individual is neither a child nor an adult. He has passed through childhood and is yet to become an adult.

Physical Development:

- Physiological changes at puberty promote rapid growth, the maturity of sexual organs, and development of secondary sex characteristics.

- Cognitive Development during early adolescence, precursors to formal operational thinking appear, including a limited ability to think hypothetically and to take multiple perspectives.

- During middle and late adolescence, formal operational thinking becomes well developed and integrated in a significant percentage of adolescents.

Social Development:

- Social relationships in early adolescence are cantered in the peer group.
- Group values guide individual behaviour. Acceptance by peers is critical to self-esteem. Most peer relationships are still same-sex.
- Young adolescents become interested in sexual relationships, but most contact is through groups.
- Some youth may begin to experiment with sexual behaviour, but many early adolescents are not sexually active with other youth. Social roles are still largely defined by external sources.
- During middle and late adolescence, values become individualized and internalized after careful consideration and independent thought.
- Friends are more often selected on personal characteristics and mutual interests. The peer group declines in importance, individual friendships are strengthened, and more youth "date" in one-on-one relationships.
- The youth experiments with social roles and explores options for career choice.

Emotional Development:

- The early adolescent is strongly identified with the peer group.
- Youth depend upon their peers for emotional stability and support and to help meld the youth's emerging identity.
- Self-esteem is greatly affected by acceptance of peers. Early adolescents are emotionally labile with exaggerated affect and frequent mood swings.
- They are very vulnerable to emotional stress.
- During middle and late adolescence, identity is more individualized, and a sense of self develops and stabilizes that is separate from either family or peer group.
- Self-esteem is influenced by the youth's ability to live up to internalized standards for behaviour.

6. ADULTHOOD

- The period of adulthood is the longest of all the stages of life.
- An average adult will be normally self-reliant and will decide and act
- Independently.
- He confirms to social and moral standards of conduct prescribed for adults.
- He develops attitudes and character traits which are expected of adults of social status.

Theory Of Cognitive Development

Bruner

JEROME SEYMOUR BRUNER

Jerome Seymour Bruner

- Born on October 1, 1915 in New York
- Died on June 5 , 2016
- Was an American psychologists made significant contributions to human cognitive psychology and cognitive learning theory in education psychology.
- At the age of 2 under went surgeries to correct vision impairment due to Cataract.
- Attend Duke University in North where he obtained a BA in 1937
- Received Ph.D. from Harvard in 1941

Educational vita

- President's science advisory Committee : Kennedy and Johnson
- Instrumental in the development of Head start program
- International Balzan price for " Life long contribution to the understanding of the human mind .
- CIBA Gold medal for distinguished research
- Distinguished scientific Award of the American psychological Association

Publications

The process of Education -1960
On knowing - 1962
The culture of Education -1966
The Relevance of Education -1971
Act of meaning - 1991
Actual minds, possible words - 1987
Towards theory of instruction - 1966

Key ideas

- The outcome of cognitive development is thinking
- Cognitive growth involves an interaction between basic human capabilities and " Culturally invented technologies that serve as amplification of the capabilities
- The aim of Education should be created Autonomous learners (learning to learn)

Characteristics Of Intellectual Growth

- Increasing independence of a response from stimulus.
- It depends on child's mental construction of model of world.
- Growing skills in symbolic activities Features intellectual development.
- It depends upon symbolic interaction with members of society.
- Increasing ability to perform current activities and competence in attending to several possibility of a situation

Theory Of Cognitive development

1. Enactive Representation
2. Iconic Representation
3. Symbolic Representation

Enactive stage (0 - 1 years)

- Cognitive experience are received and represented through motor activities
- Learning through physical action
- Child know the world only through the medium of action not through word or images
- Eg: infant understand his environment by touching, biting and grasping

Iconic stage (1 - 6 years)

Cognitive experience received and represented through sensory images or mental images

Information is gained through imagery

Knowledge is stored primarily in the form of visual images

Eg: Drawing a picture of an elephant, a house etc.

Symbolic stage (7 years onwards)

Cognitive experience received and represented through symbolic, words

Action and images are translated into words. Which in turn lead to Abstract thinking

Child engage symbolic activities like languages and mathematics

Educational Implications

- Spiral curriculum.
- Introduced complex ideas to children at different times with increasing abstractness.
- Children learn according to their mode of representation.
- Teacher and student should engage in active interactions.
- Teacher should translate learning material into a form suitable to learners.
- Teacher should consider the learners current state of understanding.

Discovery Learning

This concept implies that learning is an active process.

In which student construct their own knowledge for themselves, based upon current or past knowledge.

According to Bruner " Children are most likely to remember things.

Spiral Curriculum

- Discover learning, and also teaching through an intellectually honest form is possible through the concept of spiral curriculum.
- This involved information being structured so that complex ideas are taught at a simplified level first, and then revisited at more complex level later on.
- Therefore subject would be taught at level of gradually increasing difficulty (hence the spiral analogy) new learning has a relationship with previous learning

Cognitive Development Theory

Jean Piaget
Swiss biologist ,philosopher and psychologist
Born:9 August 1896
Birth place :Switzerland
Died:17 September 1980

According to Piaget ,cognitive development takes place as the result of continuous interaction between the organism and the environment.

Stages Of Intellectual Development

Piaget proposed that cognition developed through distinct stages from birth to the end of adolescence. By stages he meant a sequence of thinking patterns with four key features

- They always happen in the same order
- No stage is ever skipped
- Each stage is a significant transformation
- Each later stages incorporated the earlier stages into itself

He defined cognitive development in to 4 stages based up on the nature of interaction.

1.Sensory motor stage

2.Pre operational stage

Pre conceptual phase Intuitive phase

3.Concrete operational stage

4.Formal operational stage

Sensory motor stage (0-2 years)

- Infants only aware of what immediately in front of them.
- Don’t know how things react .
- So constantly experimenting with activities and learn through trail and error.

- In this period, intelligence is demonstrated through motor activity without the use of symbols
- Infant begin to realize that an object exists even it can no longer be seen(between 7 and 9 months):Object permanence
- By the end of stage, symbolic abilities are developed.

Pre-operational stage(2-7years)

- Memory and imagination are developed
- Ego centric
- Irreversibility
- Language use matures
- Thinking is done in non logically

Pre-conceptual phase (2-4years)

- Young children able to think about things symbolically.
- Language use become more mature.
- Develop memory and imagination which helps them to understand difference in past and future.
- Can think about things which are not immediately present.
- Child becomes egocentric.
- Deferred imitation and Symbolic play.
- Animistic thinking

Intuitive Phase (4-7years)

- Thoughts of child is not logical , it is based on intuition .
- They cannot grasp more complex concept , like cause and effect , time and comparison.
- Has not developed ability for reversibility that is ,while thinking ,unable to return to the starting point.

Concrete operational stage(7-12years)

- Demonstrate logical and concretes reasoning .
- Become less ego centric
- Ability of reversibility develops and it promotes logical thinking
- Abstract thinking not possible
- Operations are possible only when concrete objects or experiences are available.
- Thinking become less egocentric. Increasingly aware of external events.
- Realize that once own thoughts and feelings are unique and may not shared by others.

Formal operational stage (12-adult hood)

- Able to logically use symbols related to abstract concept like algebra and science.
- Hypothetic -deductive reasoning.
- Ability to transfer knowledge
- No longer need concrete object or experience for thinking .
- Capable of reasoning.
- Solves problems on the basis of action.
- They can ponder (think about) abstract relationship and concepts just and justice.

Educational Implications Of Piaget's Theory

- Piaget's theory provides a broad developmental perspective to the educator for building an ability-based curriculum.

- Piaget's description of cognitive development can greatly help curriculum planners to decide the ideal times for the teaching of certain subjects and also the sequence.

- Piagetian theory advocated the need of child centred education by saying that the educational experience must be built around the learner's cognitive structure.
- Piaget's technique may leads to assessment of the child's level of intellectual development that in turn may guide educators in grade placement and remedial measures

Erik Erikson's
Stages Of Psychosocial Development

The Theory

- Erik Erikson's theory of psychosocial development is one of the best- known theories of personality in psychology.
- It describes the impact of social experiences across the whole lifespan.
- Personality develops in a series of stages.

Psychosocial Stages

Stage1- Trust Vs. Mistrust
Stage2- Autonomy Vs. Shame & Doubt
Stage3- Initiative Vs. Guilt
Stage4- Industry Vs. Inferiority
Stage5- Identity Vs. Role Confusion
Stage6- Intimacy Vs. Isolation
Stage7- Generality Vs. Stagnation
Stage8- Integrity Vs. Despair

Trust Vs. Mistrust

- Occurs in infancy (birth- 18months).
- Babies must learn to trust there parents care and affection.
- If not done the babies could develop a distrust and view the world as inconsistent world as unpredictable.

Autonomy Vs. Shame and Doubt

- Occurs in the toddler age(18 months – 3 years).
- Child learns to feed themselves and do things on there own.
- They could start feeling ashamed and doubt their abilities.
- Questions the child’s willpower.

Initiative Vs. Guilt

- Preschool age (3-5 years old).
- Using initiative in planning or carrying out plans.
- Develop a sense of guilt over misbehaviour regarding parents limits.
- Questions ones purpose and role in life.

Industry Vs. Inferiority

- School age (5-11 years of age).
- Learn to follow the rules imposed by schools or home.
- The child can start believing they are inferior to others.

Identity Vs. Role Confusion

- Adolescence (11-18 years of age).
- Acquire a sense of identity.
- Can become confused about ones role in life.
- Questions who you are and if your happy.

Intimacy Vs. Isolation

- Young adulthood(18-40 years of age).
- Develop a relationship and joint identity with a partner.
- Can become isolated and stay away from meaningful relationships.
- Questions if the person is ready for new relationship, or if there is a fear of rejection.

Generality Vs. Stagnation

- Middle adulthood (40-65 years of age).
- Making use of time and having a concern with helping others and guiding the next generation.
- Can become self- centred, and stagnant.
- Questions what the person will do with their extra time.

Integrity Vs. Despair

- ✔ Late adulthood (60 and up)
- ✔ Understand and accept the meaning of temporary life.
- ✔ Complains about regrets, not having enough time, and not finding a meaning throughout life.
- ✔ Questions ones overview of their entire life.

Overview

- Erickson has eight developmental stages that gives people an idea of what to expect throughout life.
- Behaviour is based on culture experiences.
- Each person has the ability to choose their path when it comes to his eight stages.

Educational Implications

- We can set specific objectives and goals for each lessons, according to the developmental needs of all students
- With the help of this theory, if a student is found to be below expected development level, then you can discuss the Childs needs with the parents, other teachers etc.
- Helps to build self awareness of learner's

Moral Development
Kohlberg

Lawrence Kohlberg

Kohlberg was born in 1927. Bronxville, New York

Obtained his Lawrence bachelor's degree after one year of study at the University of Chicago in 1948

Earned his doctoral degree in 1958 from the same university after writing a dissertation outlining stage theory of moral development

Influenced by Jean Piaget's theories of cognitive development in children.

(1958) His doctoral dissertation on the six stages of moral development was published.

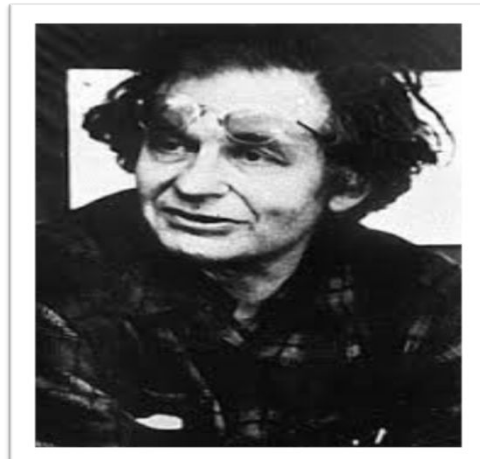
Began teaching at Yale University in 1959.

In 1962 he worked at University of Chicago

Then in 1968 he began his career at Harvard University

Passed away at the age of 59 in 1987.

Piaget



Kohlberg

Jean Piaget is the first Human developmental psychologist to define Moral development.

Piaget's Stages Of Moral Development

Anomy	- 0 – 5 Years
Heteronomy – Authority	- 5 – 8 Years
Heteronomy – Reciprocity	- 8 – 13 Years
Autonomy – Adolescence	- 13 – 18 Years

ANOMY STAGE : From Birth to Five Years.

- This Stage is a stage without Law.
- The child does not know whether the behaviour is Moral or immoral.

HETERONOMY - AUTHORITY : 5 - 8 years

- Children Follow strict rules and are completely obedient to authority.
- punishment is seen as an automatic response to breaking a rule.

HETERONOMY - RECIPROCITY - 9 -13 years

- This stage is regulated by reciprocity which implies, “We should not do to others what will be offensive to us”.
- The Moral development in most of us get fixed at this stage and may not progress ahead.

AUTONOMY - ADOLESCENCE : 13 -18 years

- Autonomy Stage Children Learn how to critically evaluate rules and apply them based on co-operation and respect with others.
- They begin to learn to take the perspective of others in this stage.
- Intention is also an important concept of this stage.

Moral Development

Moral Development

Moral development is the process through which children develop proper attitudes and behaviours toward other people in society, based on social and cultural norms, rules, and laws

Moral Development

- The term “Moral” is derived from the Latin word” Mores” . Meaning “manners” ,”customs” and “folk ways”.
- Moral development refers to the development of moral concept and moral behaviour.
- Moral development start developing when the child learns what is good and what is bad .what is right and what is wrong.

- The child initiation in to the mysteries of good and bad is through his parents acceptance or rejection of his various action.

- Any action that meets with his parents disapproval and criticism is categorised by the child as bad or wrong.

- On the other hand ,all actions sanctioned and welcomed by the parents are accepted as good and correct.

- An action that automatically result in reward brings him pleasure so he considers it good and right. Where punishment is the result of an action ,he considers it bad and wrong.

- An individuals morality and sociability appear to be interrelated and a socialized individual will normally be a person with good character. Hence moral development can be considered as a part of social development.

- Kohlberg is a psychologist who has done elaborate studies about moral development ,from these studies he could conclude that moral development takes place along a number of sequential stages.

- He has identified 6 such stages that fall in to 3 fundamentally different level of moral orientation.

- He named the first two stages as the Pre-conventional level , The next two stages are Conventional level , and the last two stages as the Post -conventional level.

Heinz Dilemma

Scene 1

A woman was near death from a unique kind of cancer. There is a drug that might save her. The drug costs $4,000 per dosage. The sick woman's husband, Heinz, went to everyone he knew to borrow the money and tried every legal means, but he could only get together about $2,000. He asked the doctor scientist who discovered the drug for a discount or let him pay later. But the doctor scientist refused. Should Heinz break into the laboratory to steal the drug for his wife? Why or why not?

Scene 2

Heinz broke into the laboratory and stole the drug. The next day, the newspapers reported the break-in and theft. Brown, a police officer and a friend of Heinz remembered seeing Heinz last evening, behaving suspiciously near the laboratory. Later that night, he saw Heinz running away from the laboratory. Should Brown report what he saw? Why or why not?

Scene 3

Officer Brown reported what he saw. Heinz was arrested and brought to court. If convicted, he faces up to two years' jail. Heinz was found guilty. Should the judge sentence Heinz to prison? Why or why not?

STAGES OF MORAL DEVELOPMENT

Pre - Moral

1)Obedience and Punishment

2) Individualism and Exchange

Conventional

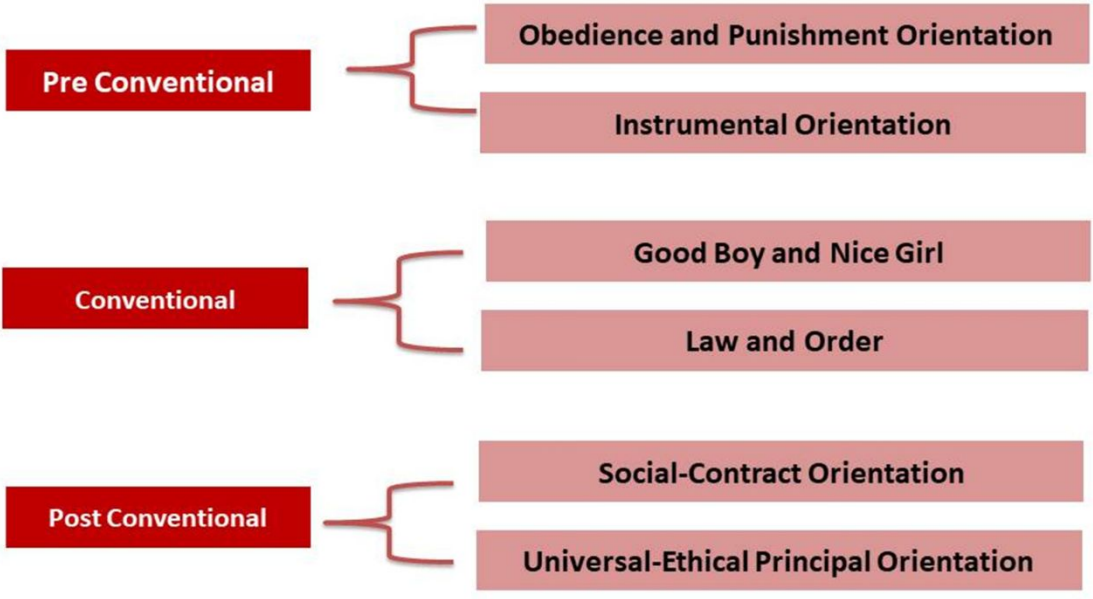
3) Good Interpersonal Relationships

4) Maintaining Social Order

Post - Conventional

5) Social Contract and Individual Rights

6) Universal Principles


Pre Conventional
Obedience and Punishment Orientation
Instrumental Orientation
Conventional
Good Boy and Nice Girl
Law and Order
Post Conventional
Social-Contract Orientation
Universal-Ethical Principal Orientation

Pre – Conventional Level (4 - 10)
Preschool Age

Stage 1:- Obedience for avoiding punishments
Children's morality is controlled by the fear of punishment. They try to obey their parents to avoid punishment

Example: The child won't grab the candy at the supermarket for fear of being slapped

Stage 2:- Conformity to satisfy needs
In this stage children's moral judgement is based on self interest and consideration of what others can do for them in return.
They obey the orders of elders because it will help them satisfy their needs.

Example: A mother tells her child: "If you are quiet at the mall, I will buy you an ice cream."

Possible Stage 1 : Responses to Heinz Dilemma:

Heinz should not steal the drug because he might be caught and sent to jail.

Heinz should steal the drug because if he doesn't then his wife might scold him.

Possible Stage 2 : Responses to Heinz Dilemma:

It is right for Heinz to steal the drug because it can cure his wife and then she can cook for him.

CONVENTIONAL LEVEL (10 -13) Early Adolescence

Stage 3 :- Conformity to group norms

- Children's moral judgement is based on the desire to obtain approval of other members of the group .
- They do not decide themselves what is right or wrong but follow norms provided by the members of the group .
- People should live up to the expectations of the family and community and behave in "good" ways.
- Good behaviour means having good motives and interpersonal feelings such as love, empathy, trust, and concern for others.

Stage 4 :- Conformity to rules in society

- While stage three actions are more concerned with pleasing your family, stage four is associated with following society as a whole. Emphasis is spent on obeying laws to maintain social order.

- Children follow the rules of society and take decisions about things as being right or wrong, with a view to avoid censure by the social system.

Possible Stage 3 responses to Heinz Dilemma

Yes, Heinz should steal the drug. He probably will go to jail for a short time for stealing but his in-laws will think he is a good husband.
Brown, the police officer should report that he saw Heinz behaving suspiciously and running away from the laboratory because his boss would be pleased.
Officer Brown should not report what he saw because his friend Heinz would be pleased.
The judge should not sentence Heinz to jail for stealing the drug because he meant well... he stole it to cure his wife.

POST – CONENTIONAL LEVEL (13 AND BEYOND)

Stage 5 :- Conformity to the democratically accepted laws
Individuals being to think in rational terms valuing the rights of human beings and welfare of society .
They respond positively to authority only if they agree with the principles upon which the demands of authority are based.

Possible Stage 4 responses to Heinz Dilemma:

As her husband, Heinz has a duty to save his wife's life so he should steal the drug. But it's wrong to steal, so Heinz should be prepared to accept the penalty for breaking the law.

The judge should sentence Heinz to jail. Stealing is against the law! He should not make any exceptions even though Heinz' wife is dying. If the judge does not sentence Heinz to jail then others may think it's right to steal and there will be chaos in the society.

Stage 6 :- Conformity to the universal ethical principles

Individuals judge morality in terms of self-chosen ethical principles. Moral judgement is now based up on conscience and the belief in universal principles of equality

As human beings we are obligated to live by the principal that “all men are created equal” regardless of race, religion, sexual orientation, or political belief. Justice is universal, so unjust laws must be broken.

Possible Stage 5: Response to Heinz Dilemma:

The doctor scientist's decision is despicable but his right to fair compensation must be maintained. Therefore, Heinz should not steal the drug.

Possible Stage 6: Response to Heinz Dilemma:

Heinz should steal the drug to save his wife because preserving human life is a higher moral obligation than preserving property.

Educational Implications

- Teaching Students "How to Think": Moral Problem-Solving .
- Emphasis on Student Activity and Discovery.
- Building an Environment.

Module 3

Motivation and Learning

- Bavya Babu

Types and Historical Perspectives

- Two types of motivation
- Extrinsic and Intrinsic motivation
- Extrinsic : it emerges from within and is directly linked with the natural instincts, urges and impulses of the organism.
- Intrinsic : it refers to conditions that are external to the activity and the individual. Here the source of satisfaction does not lie with in the task.

Types and Historical Perspectives

- Motivation, forces acting either on or within a person to initiate behaviour. The word is derived from the Latin term motives (“a moving cause”), which suggests the activating properties of the processes involved in psychological motivation.
- Psychologists study motivational forces to help explain observed changes in behaviour that occur in an individual. Thus, for example, the observation that a person is increasingly likely to open the refrigerator door to look for food as the number of hours since the last meal increases can be understood by invoking the concept of motivation.

- As the above example suggests, motivation is not typically measured directly but rather inferred as the result of behavioural changes in reaction to internal or external stimuli.

- It is also important to understand that motivation is primarily a performance variable. That is, the effects of changes in motivation are often temporary.

- An individual, highly motivated to perform a particular task because of a motivational change, may later show little interest for that task as a result of further change in motivation.

- Motives are often categorized into primary, or basic, motives, which are unlearned and common to both animals and humans; and secondary, or learned, motives, which can differ from animal to animal and person to person.

- Primary motives are thought to include hunger, thirst, sex, avoidance of pain, and perhaps aggression and fear.

- Secondary motives typically studied in humans include achievement, power motivation, and numerous other specialized motives.

- Motives have also sometimes been classified into “pushes” and “pulls.” Push motives concern internal changes that have the effect of triggering specific motive states.

- Pull motives represent external goals that influence one's behaviour toward them.

- Most motivational situations are in reality a combination of push and pull conditions.

- For example, hunger, in part, may be signalled by internal changes in blood glucose or fat stores, but motivation to eat is also heavily influenced by what foods are available. Some foods are more desirable than others and exert an influence on our behaviour toward them.

- Behaviour is, thus, often a complex blend of internal pushes and external pulls.

Achievement Motivation

- Developed by Mc Clelland
- According to him human behaviour is not intended to reduce tension and reach a state of physiological and psychological equilibrium.
- It is the desire to do better to achieve unique accomplishment to compare with standards of excellence and to involve oneself with long term achievement goals.
- Student who have high achievement motivation work hard and perform well on tasks
- The home ,school and society play an important role in the development of achievement motive.

Classroom Motivational Techniques

- Setting up a goal
- Maintaining a pleasant atmosphere
- Linking the new learning with past experiences
- Adopting effective methods of teaching
- Using appropriate audio- visual aids
- Providing immediate feedback of achievements.
- Promoting completion and Co operation.
- Praise and Blame.
- Reward and Punishment
- Promoting ego – involvement.

Drives and Reinforcement

- The behaviouristic approach examines how motives are learned and how internal drives and external goals interact with learning to produce behaviour

Drives

- Drive, in psychology, an urgent basic need pressing for satisfaction, usually rooted in some physiological tension, deficiency, or imbalance (e.g., hunger and thirst) and impelling the organism to action

Reinforcement

- Reinforcement theory of motivation was proposed by BF Skinner and his associates.
- It states that individual's behaviour is a function of its consequences.
- Thus, according to Skinner, the external environment of the organization must be designed effectively and positively so as to motivate the employee.

Socio Cognitive Perspective Of Motivation

Goal Orientation

- Goal orientation theory is a social-cognitive theory of achievement motivation.
- Whereas other motivational theories examine students' beliefs about their successes and failures, goal orientation theory examines the reasons why students engage in their academic work.
- The work of early goal theorists contrasted two types of goal orientations: mastery which is a desire to acquire additional knowledge or master new skills, and performance, which is a desire to demonstrate high ability and make a good impression.
- Recent works of Goal theorists have incorporated a second dimension of goal orientations: approach and Avoidance.

- Mastery-oriented goals are defined in terms of a focus on learning, mastering the task according to self-set standards or self-improvement.

- It also encompasses developing new skills, improving or developing competence, trying to accomplish something challenging and trying to gain an understanding or insight.

Self Efficacy Believes

- Bandura first introduced the construct of self-efficacy in 1977, researchers have been very successful in demonstrating that individuals' self-efficacy beliefs powerfully influence their attainments in diverse fields (see Stajkovic and Luthans 1998, for meta-analysis of research on the relationship between self-efficacy beliefs and achievement outcomes).

- In his 1997 book,

Self-Efficacy: The Exercise of Control, Bandura set forth the tenets of his theory of self-efficacy and its applications to fields as diverse as life-course development, education, health, psychopathology, athletics, business, and international affairs

- In this volume, Bandura also further situated self-efficacy within a social cognitive theory of personal and collective agency that operates in concert with other socio-cognitive factors in regulating human well-being and attainment memory, problem solving, career development, and teaching and teacher education Self-efficacy has generated research in areas as diverse as medicine, athletics, media studies, business, social and political change, psychology, psychiatry, and education.

- In psychology, it has been the focus of studies on clinical problems such as phobias, depression, social skills , assertiveness, smoking behaviour, and moral development. Self-efficacy has been especially prominent in studies of educational constructs such as academic achievement, attributions of success and failure, goal setting, social comparisons.

- In general, researchers have established that self-efficacy beliefs and behaviour changes and outcomes are highly correlated and that self-efficacy is an excellent predictor of behaviour.

- The depth of this support prompted Graham and Weiner (1996) to conclude that, particularly in psychology and education, self-efficacy has proven to be a more consistent predictor of behavioural outcomes than have any other motivational constructs.

Perception of control

Perceived control (PC) can be defined as the belief that one sees he or she has control over their inside state, behaviour and the place or people or things or feelings or activities surrounding a person.

There are two important dimensions:

(1) whether the object of control is in the past or the future and

(2) whether the object of control is over outcome, behaviour, process.

Humanistic Perspectives Of Motivation

MOTIVATION

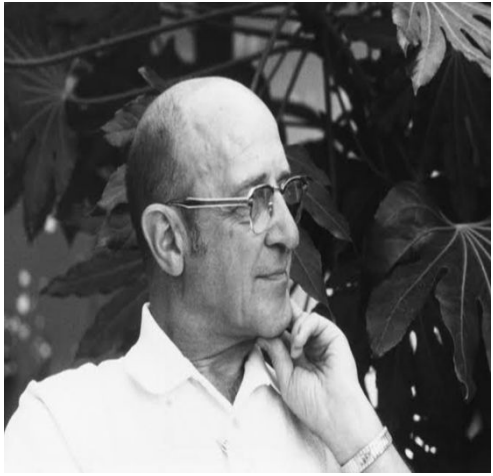
Motivation is the process that initiates, guides and maintains goal- oriented Behaviours.

Humanistic Theories Of Motivation

Based on the idea that people also have strong cognitive reasons to perform various actions.

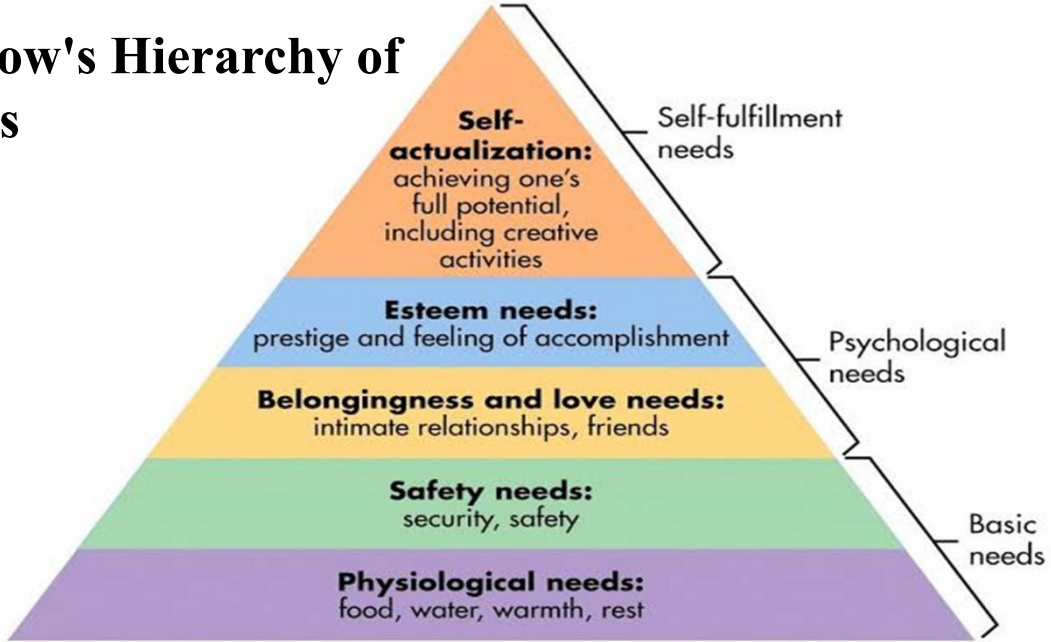
Once the lower level needs have been met, the primary motivator becomes the need for self-actualization, or the desire to fulfil one's individual potential

Carl Rogers
(1902-1987)

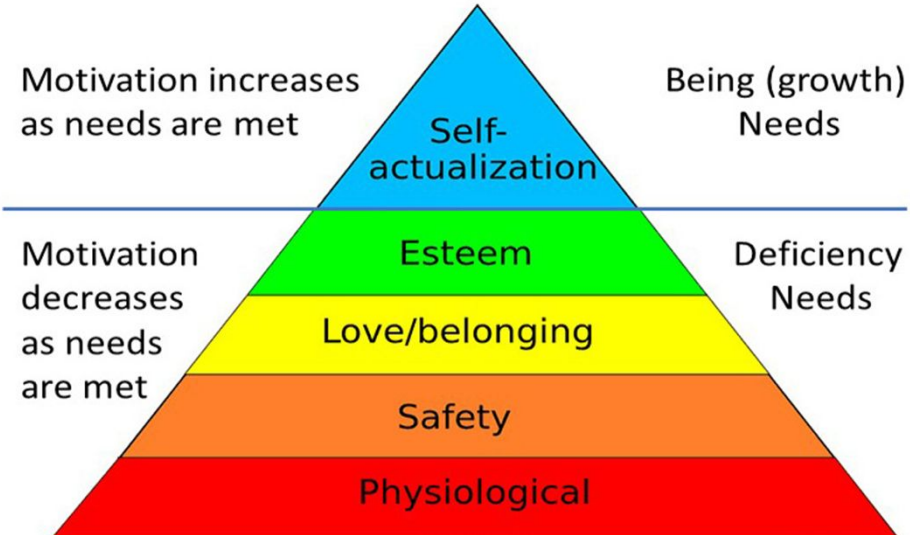


Abraham Maslow
(1908-1970)

Maslow's Hierarchy of Needs



Deficiency Needs Vs. Growth Needs



siological Needs

r

Warmth
Sex
Sleep
Clothing

Safety Needs

- Protection From Elements
- Security
- Order
- Law
- Stability
- Freedom From Fear

Love And Belongingness Needs

- Friendship
- Intimacy
- Trust
- Acceptance
- Receiving And Giving Affection And Love
- Affiliating
- Being Part Of A Group (Family, Friends, Work)

EEM NEEDS

Esteem Needs

i) Esteem for oneself

- Dignity
- Achievement
- Mastery
- Independence

ii) the desire for reputation or respect from others

- Status
- Prestige

Self- Actualization Needs

A desire "to become everything one is capable of becoming" (Maslow, 1987, P.64).

- Realizing personal potential
- Self- fulfillment
- Seeking personal growth and peak experiences.

Hierarchy Of Needs Summary

a) Human beings are motivated by a hierarchy of needs.

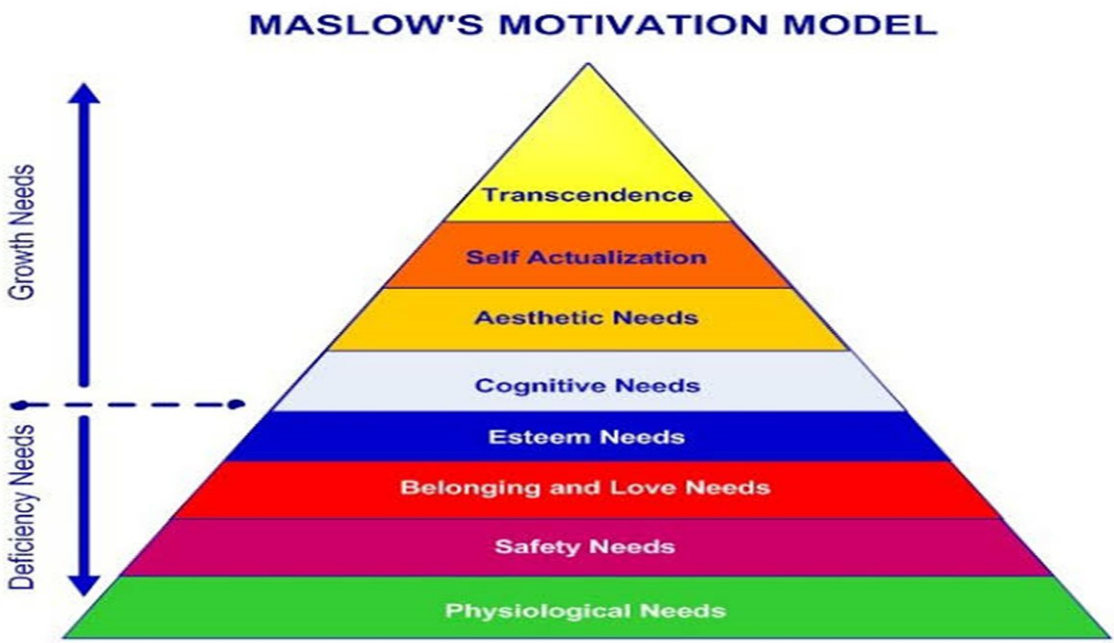
(b) needs are organized in a hierarchy of prepotency in which more Basic needs must be more or less met (rather than all or none) prior to Higher needs.

(c) the order of needs is not rigid but instead may be flexible based on external circumstances or individual differences.

(d) most behaviour is multi-motivated, that is, simultaneously determined by more than one basic need.

The Expanded Hierarchy Of Needs

- Physiological needs
- Safety needs Love and belongingness needs Esteem needs
- Cognitive needs Aesthetic needs Self-actualization needs Transcendence needs


MASLOW'S MOTIVATION MODEL
Growth Needs
Deficiency Needs
Transcendence
Self Actualization
Aesthetic Needs
Cognitive Needs
Esteem Needs
Belonging and Love Needs
Safety Needs
Physiological Needs

Cognitive Needs

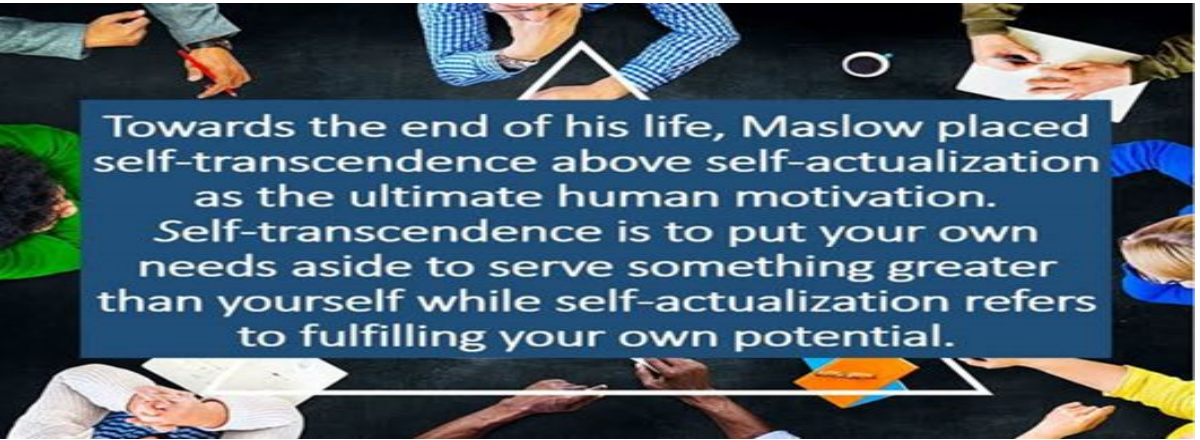
- Knowledge And Understanding
- Curiosity
- Exploration
- Need For Meaning And Predictability.

Aesthetic Needs

Appreciation and search for beauty, balance, form, etc.

Transcendence Needs

A person is motivated by values which transcend beyond the personal self.



Characteristics of self-actualizers

1. They perceive reality efficiently and can tolerate uncertainty;
2. Accept themselves and others for what they are;
3. Spontaneous in thought and action;
4. Problem-centered (not self-centered);
5. Unusual sense of humor ;
6. Able to look at life objectively;
7. Highly creative;
8. Resistant to enculturation, but not purposely unconventional;
9. Concerned for the welfare of humanity;
10. Capable of deep appreciation of basic life-experience;
11. Establish deep satisfying interpersonal relationships with a few people;
12. Peak experiences;
13. Need for privacy;
14. Democratic attitudes;
15. Strong moral/ethical standards.

Behaviour Leading To Self-actualization

(a) Experiencing life like a child, with full absorption and concentration;
(b) Trying new things instead of sticking to safe paths;
(c) Listening to your own feelings in evaluating experiences instead of the voice of tradition, authority or the majority;
(d) Avoiding pretence ('game playing') and being honest;
(e) Being prepared to be unpopular if your views do not coincide with those of the majority;
(f) Taking responsibility and working hard;
(g) Trying to identify your defences and having the courage to give them up.

Educational Applications

- Adopts a holistic approach to education and learning.
- Maslow looks at the complete physical, emotional, social, and intellectual qualities of an individual and how they impact on learning.
- Applications of Maslow's hierarchy theory to classroom are obvious. Before a student's cognitive needs can be met, they must first fulfil their basic physiological needs.

- Students need to feel emotionally and physically safe and accepted within the classroom to progress and reach their full potential.

- Maslow suggests students must be shown that they are valued and respected In the classroom, and the teacher should create a supportive environment.

- Students with a low self-esteem will not progress academically at an optimum Rate until their self-esteem is strengthened

- Maslow (1971, p. 195) argued that a humanistic educational approach would develop people who are “stronger, healthier, and would take their own lives into their hands to a greater extent.

- With increased personal responsibility for one’s personal life, and with a rational set of values to Guide one’s choosing, people would begin to actively change the society.

Critical Evaluation

- Psychologists now conceptualize motivation as a pluralistic behaviour, whereby needs can operate on many levels simultaneously.
- A person may be motivated by higher growth needs at the same time as lower level deficiency needs.

- Maslow formulated the characteristics of self-actualized individuals from undertaking a qualitative method called biographical analysis Which is extremely subjective as it is based entirely on the opinion of the Researcher.

Carl Rogers (1902-1987)

- A humanistic psychologist who agreed with the main assumptions of Abraham Maslow. However, Rogers (1959) added that for a person to "grow", they need an environment that provides them with genuineness (openness and self-disclosure), acceptance (being seen with unconditional positive regard), and empathy (being listened to and understood).
- Without these, relationships and healthy personalities will not develop as they should, much like a tree will not grow without sunlight and water.
- Rogers believed that every person could achieve their goals, wishes, and desires in life. When, or rather if they did so, self actualization took place.
- This was one of Carl Rogers most important contributions to psychology, and for a person to reach their potential a number of factors must be satisfied.

Self Actualization

"The organism has one basic tendency and striving - to actualize, maintain, and enhance the experiencing organism” (Rogers, 1951, p. 487).

MODEL OF MOTIVATED LEARNING

What is motivation

Motivation can be defined as "process whereby goal directed activity is instigated and sustained
Motivation is not merely about interest which can just be curiosity about a topic but rather it requires activity leading towards some goal
Paul pint rich provides a summery of current thinking on motivation in learning.

Motivational generalisation

- Self efficacy

Class room design principles

- Provide feedback focusing on development of competency, expertise and skill
- Task provide opportunity for success but also challenge students

Behaviour & Performance

- ✔ Development of self efficacy
- ✔ Enactive mastery
- ✔ Vicarious experience
- ✔ Verbal persuasion
- ✔ Physiological arousal

Motivational Generalisation

Self determination and personal control

Classroom design principles

- Provide opportunities for student choice and control
- Stress that learning is a process, involving efforts, application of strategies and personal management

Motivational Generalisation

Personal and situational interest

Classroom design principles

- Include variety and novelty in task and activities
- Construct tasks that have personal meaning for students

Motivational Generalisation

Value calculations

Classroom Design Principles

- Provide activities that are relevant and useful
- Class discussion should focus on importance and utility of activities

Motivational Generalisation	Classroom Design Principles
Goal orientation	• Structures course activities to include both social and academic goals • Feedback and class discussion should focus on learning for mastery rather than comparative performance

Conclusion

- It describes five factors that can effect motivated learning in classroom. That is self efficacy, self determination and personal control, personal and situational interest, value calculations and goal orientation.
- This study provides some lenses through which to view students may or may not be motivated by particular instructional techniques.

Module 4

Learning and Instruction

-Christeena K.M.
- Veena K

LEARNING

- The acquisition of knowledge or skills through study, experience, or being taught.

DEFINITIONS FOR LEARNING

- "The process of gaining knowledge and expertise."
  - Malcolm Knowles

- "The term learning covers every modification in behaviour to meet environmental requirements."
  -Gardner murphy

- "Learning is the acquisition of new behaviour or the strengthening or weakening of old behaviour as the result of experience."
  - Henry R Smith

- “Learning is the process by which behaviour (in the broader sense) is organised or changes through practice or training.”

  - Kingsley and Garry

- “A change in human disposition or capability that persists over a period of time and is not simply ascribable to processes of growth.”

  -Robert Gagne

- Gales defined Learning as the behavioural modification which occurs as a result of experience as well as training.

- Crow and Crow defined learning as the process of acquisition of knowledge, habits and attitudes.

- According to E.A, Peel, Learning can be described as a change in the individual which takes place as a result of the environmental change.

- H.J. Klausmeir described Learning as a process which leads to some behavioural change as a result of some experience, training, observation, activity, etc.

- John B Watson is one amongst the first thinkers who has proven that behavioural changes occur as a result of learning.

(Watson is believed to be the founder of Behavioural school of thought, which gained its prominence or acceptability around the first half of the 20th century)

CHARACTERISTICS OF LEARNING

1.Learning is growth.
2.Learning is adjustment.
3.Learning is intelligent.
4.Learning is active.
5.Learning is the product of environment.
6.Learning is both individual and social.
7.Learning is purposeful.
8.Learning is organising experience.
9.All living is learning.
10.Learning is universal.

CONCEPT OF LEARNING

1.Learning is the central theme of educational psychology.
2. It occupies an important place in every bodies life in the family, and in school.
3. To interact with the school environment and learn to adjust.
4. Learning is the key process in human behaviour which pervades everything we do and think.
5. Schools are set up in by society for its children to learn.
6.All action-reaction behaviours involve change and modification in the organism.

LEARNING AND MATURATION

MATURATION

- Process of becoming mature or developed, both mentally and physically.
- Maturation is an important factor which influences learning. Maturation is a natural process.
- For maturation an external stimulus is not necessary and its sequence is biologically predetermined. On the other hand, learning is a change in the individual. It is a process which takes place as a result of ‘stimuli’ from ‘without’.

- The behaviour is said to have matured if a behaviour sequence develops through regular stages (irrespective of intervening practices or training)

- In case training procedures do not modify or speed up the behaviour. Such procedures are not important.

Difference

Maturation	Learning
1. Based on heredity	1. Based on environment
2. Motivation is not necessary	2. Motivation is necessary
3. Age limitation	3. No age limitation
4. Unconscious	4. Conscious
5. Suitable situation and unsuitable situation used	5. Conductive and suitable situation used
6. Refers process of growth and development of the body	6. Refers process of development and acquiring knowledge
7. Automatic and uncontrolled process of behaviour change	7. Planned and controlled process of behaviour modification
8. Racial difference	8. Psychological difference

Relation of Development And Learning

- Learning is the development that comes from efforts and practice.
- We know that interaction of maturation and learning is important for development.
- Development takes place in all aspects.
- Maturation sets limits to development.
  Therefore, maturation and learning work together to promote the development of an individual (opposite said by Piaget)

LEVELS OF LEARNING AND TEACHING

LEARNING

“Teaching is a form of interpersonal influence aimed at changing the behaviour potential of another person.”

- Gage

'Learning is the acquisition of knowledge, habits and attitudes. It involves new ways of doing things and it operates in an individual's attempts to overcome obstacles or to readjust to new situations. It represents progressive change in behaviour .”

- Crow & Crow

- Cognitive
- Affective
- Psychomotor

Cognitive Domain

KNOWLEDGE LEVEL

- Lowest level of cognition.
- Information processing at superficial level.
- Includes recalling and remembering data , facts, events or objects.

COMPREHENSION LEVEL

Understanding of facts by,

- Organizing
- Translating
- Interpreting
- Comparing

Also having abilities like summarizing, interpret data in different ways, translation of graphs and pictures in meaningful ways.

APPLICATION LEVEL

- Use learned material in new situation.
- May include application of law , principle, rules, methods, concepts , theories etc.

ANALYSIS LEVEL

- Ability to breakdown material into meaningful components.
- Includes identification of parts, analysis of relationships between parts and recognition of organizational principles.

Analysing Data:

Generate categories/ theme based on the nodes/ codes

Looking for

- Relationship among codes
- Frequency of the codes
- Underlying concepts based on combination of codes.

SYNTHESIS LEVEL

- Ability to put parts together to form a new whole.
- Creative behaviour is a key feature.

- Involve unique communication, devising a plan of operation etc.

- Results in production of a unique communication or production of a plan or proposed set of operations or derivation of a set of abstract relation.

EVALUATION LEVEL

- Evaluating value of a material for given purpose.
- Judgements based on definite criteria.

Affective Domain

RECEIVING

- Passive attention.
- No learning occurs here.

RESPONDING

- Here learner actively participates in learning process.
- Not only attending the stimulus but also responding.

VALUING

- Here student attaches a value to an object, phenomenon, or piece of information.
- Showing commitment.

Valuing Definition
Showing some definite involvement or commitment

Example:
The individual might demonstrate this by voluntarily attending a lecture on civil rights.

Behavioural Verbs
Accept
Defend
Devote
Pursue
Seek

ORGANIZING

Learner can put together different values, information and ideas and adapt them within his or her own schema; comparing , relating and elaborating on what has been learned.

Organisation Definition
Integrating a new value into one's general set of values, giving it some ranking among one's general priorities.

Example:
The individual might arrange a civil rights rally.

Behavioural Verbs
Codify
Display
Order
Discriminate
Organize
Systematize
Weigh

CHARECTERIZING

- Student holds a particular value or belief that now exerts influence on his or her behaviour so that that it becomes a characteristic.

Characterization

By value or by value set is to act consistently in accordance with values he or she has internalised

PSYCHOMOTOR DOMAIN

IMITATION

- Early stage in learning a complex skill.
- It indicates an overt behaviour or readiness to take a particular type of action.

- Repeating an act that has been demonstrated or explained.

- Done through trial and error until an appropriate response is achieved.

MANIPULATION

It involves differentiating among various moments and selecting the proper one.

PRECISION

Refers to doing an act with accuracy and speed at desired level of proficiency.

ARTICULATION

Refers to coordinated series of actions, achieving harmony and internal consistency.

Naturalization

- Refers to the level of perfection where action becomes natural without needing to think much about it.

LEVELS OF TEACHING

1.**MEMORY LEVEL:**

- The first and thoughtless level of teaching.
- It is concerned with memory or mental ability that exists in all living beings.
- Thinking ability doesn’t play any role.
- Students only cram the facts, information, formulas and laws that are taught to them.

- Teacher’s role is prominent.
- The study material is organized and pre planned .
- The teacher presents the study material in order.
- It lacks insight .
- Psychologically it is cognitive level of teaching.

2. UNDERSTANDING LEVEL:

- This level is to perceive the meaning, grasp the idea and comprehend.
- It is more useful and thoughtful from the point of view of mental capabilities.
- At this level of teaching the teacher explains the student about the relationship between principles and facts and teach them how these principles can be applied.

- This enables students to have complete command over subject material.
- Here teacher should be more active.
- No cramming.
- A generalization is made on the basis of facts and the facts are used in new situation.

3. REFLECTIVE LEVEL

- Also known as introspective level.
- Thinking deeply and carefully on something.
- Highly thought full and useful.
- Enable students to solve real life problems.
- Creative abilities develop at this level.
- Teacher is democratic.

FACTORS AFFECTING LEARNING

- Let us try to understand some of the major factors influencing learning.
- Certain factors are innate or personal to the individual engaged in the process of learning that are specifically unique to him/ her.
- These factors include intelligence, motivation, emotions, interests, attitudes, beliefs, values, learning styles etc.

- There are certain other factors which belong to the environment or the surroundings with which the individual continuously interacts.

- Such factors include family, peer-group, neighbourhood , community, school-related factors etc.

- All these personal and environmental factors play a crucial role in influencing student learning.

- The following points highlight the main factors influencing learning.

1. Physiological Factors
2. Psychological Factors
3. Environmental Factors
4. School related factors.
5. Methodology of Instructions.
6. Influence of Media on Learning

A. Physiological Factors:

- The physiological factors are sense perception, physical health, fatigue time and day of learning, food and drink, age and atmospheric conditions.

1. Sense-perception:

- Sensation and perception are the basis of all cognitive learning.
- Weaker the power of perception, lesser the amount of learning.
- A blind man learns far less than a normal person. Impairment of sense organs is a handicap in the process of learning.

2. Physical Health:

- Ill health hampers learning. Sound mind is only in a sound body. Sound physical health gives vigour and vitality to pursue learning activities for a longer education.
- A diseased person is handicapped by the normal physical strength necessary for any mental activity

3. Fatigue:

- Muscular or sensory fatigue causes mental boredom and indolence.
- A number of factors in the home and school environment may cause physical and mental fatigue, such as lack of accommodation, bad seating arrangement, unhealthy clothing, inadequate ventilation, poor light, noise over crowdingness , and pure nutrition.
- Longer homes of study also cause fatigue which affects the learning capacity.

4. Time of Learning:

- Morning and evening hours are the best periods of study. During the day, there is decline in the mental capacity.
- Experiments on children have shown that there are great variations in learning efficiency during the different hours of the day.

5. Food and Drink:

- Nutrition is responsible for efficient mental activity. Poor nutrition adversely affects learning.
- The type of food also has some effect.
- The alcoholic drinks, caffeine, tobacco and such addictive items have adverse effect on neuro -muscular system, and consequently upon the learning capacity.

6. Atmospheric Conditions:

- High temperature and humidity lower the mental efficiency.
- Low ventilation, lack of proper illumination, noise and physical discomfort (as we find in factories and overcrowded schools) hamper the learning capacity.
- Distractions of all sorts affect power of concentration and consequently the efficiency of learning.

7. Age:

- Learning capacity varies with age. Some subjects can better be learnt at the early age, and some during adulthood.
- On the evidence of experiments conducted. Thorndike says that mental development does not stop at 16 or 18 but increases upto 23, and halts after 40.
- Learning proceeds rapidly between 18 and 20, remains stagnant till 25, and declines upto 35.
- Age accompanies mental maturation. So some complex problems cannot be solved till the person is sufficiently mature.

B. Psychological Factors

- Personal factors (psychological factors) are the intra or within individual factors like mental health, intelligence, motivation, interests, attitudes, etc.
- which predispose an individual towards learning(as in the cases of Mary and Margaret as well as Vishal and Vishnu).

1 .Mental Health:

- Mental tension, complexes, conflicts, mental illnesses and mental diseases hamper learning.

- A maladjusted child finds it difficult to concentrate. Concentration needs mental poise and absence of mental conflict or complex.

- Some pupils find it difficult to prepare for the university examination, simply because of fear of the examination and anxiety neurosis. A calm, serene and balanced mind provide the power to concentrate and learn better.

2.Intelligence

- ✔ Research studies revealed that intelligence is positively related to learning ability of the children.

- ✔ You must have seen wide variations across individuals and cultures as to what actually constitutes intelligence.

Let us take a closer look at what this statement means by engaging in the following analytical task:

- Vandana always comes first in class.
- Iqbal has the ability to memorize dates and years of historical events in a chronological order.
- Sanjay is very good in dancing.
- Elizabeth can produce sound of any bird or animal.
- Vishal is a good table-tennis player.

- Looking at the above profiles of five students, could you identify who is the most intelligent student? Perhaps, you cannot.
- This is because each of the five students has their distinctive talent in their own area or field.
- This is indicative of the fact that you cannot define ‘intelligence’ with a single context.
- Probably, there are as many definitions of intelligence as there are experts who study it.
- Broadly, we can define intelligence as the ability to learn about, learn from, understand, and interact with one’s environment.

This general ability consists of a number of specific abilities, which include:

- Adaptability to a new environment or to changes in the current environment;
- Capacity for knowledge and the ability to acquire it;
- Capacity for reason and abstract thought and to comprehend relationships;
- Ability to evaluate and judge; and capacity for original and productive thought.

2.Motivation

- Motivation and Interest:

- No learning take place unless it is motivated.

- Purposeless learning is no learning at all.
- Every child is impelled by some motive to learn new things.
- In the absence of motivation, one cannot feel interest in the act of learning.

- A child's behaviour in learning is energised by motives, selected by motives and directed by motives.

(i) Motives Energise Behaviour:

- Hunger and thirst induce acquisition of food. Reward induces further success.
- Punishment or failure induces action for achievement.

(ii) Motives Select Behaviour:

- Only those acts of learning are selected which are supported by some motive.
- A boy visits a village fair. He sees only those toys, objects or things that interest him.

(iii) Motives Direct Behaviour:

- These activate the person, enthuse him and impel him to do the desired action. These direct his energies to reach the desired action.
- These direct his energies to reach the desired goal. Sultan of Kohlar was directed by hunger to reach the bananas, and that way he strived and learnt the way.

- Motivation may be regarded as something which prompts, compels and energizes an individual to act or behave in a particular manner, at a particular time for attaining some specific goals or purposes.

- Motivation may also be formally defined as an internal state that arouses, directs and maintains behaviour.

- We can say that motivation as an internal energy or a mental force that drives a person to achieve a goal.

- Motivation directs behaviour toward particular goals.
- Motivation leads to increased effort and energy.
- Motivation increases initiation of and persistence in activities.
- Motivation affects cognitive processes.
- Motivation determines which consequences are reinforcing and punishing.
- Motivation often enhances performances.
- Motives energise behaviour.

3. Success, Praise and Blame:

- Nothing succeeds like success. Thorndike's law of effect, is applicable most commonly.
- Experimental evidences show that praise stimulates small children to work and learn, although it does not produce much effect on superior and elder children.
- Elder children are more sensitive towards reproof and blame, than younger children are.

4. Rewards and Punishment:

- Rewards of all sorts are powerful incentives to learn. But these days in India school rewards are more abused than used properly.
- A first division of distinction in the examination is a false reward. Work is its own rewards.
- Pupils forget this point. They become over-dependent on rewards.
- They refuse to work without any incentive of reward. All learning should not be and cannot be rewarded immediately.

- Punishments, arousing fear in anticipation, may influence the pupil to work and learn, but not in all the cases.
- Sometimes punishment creates bad reaction, retaliation, hatred and disgust.
- Experimental studies show that punishment interfere with complex learning activities, when punishments become frequent.
- Absence of punishment becomes a basis of low activity on the part of the pupil. In the absence of fear, they disobey and waste time.

5.Maturation for Readiness to Learner.

- A learner's readiness and will power to learn is a great deciding factor of his/her results in learning.
- It is presumed that if an individual has will to learn, then automatically he/she will find ways for effective learning.

6.Emotions

- It is a well accepted fact that our emotions play quite a significant role in guiding and directing our behaviour.
- Many times, they seem to dominate us in such a way that we have no solution other than behaving as they want us to.
- Emotions are the feelings that color our lives and allow us to experience all of the joys and sorrows of life.

7.Interests

- Interests are actually deep rooted constructs and are determined by the need structure of an individual.

- An individual with strong social needs such as belongingness, affiliation and recognition will direct all his/ her energies into activities which enable him/her to fulfill these needs such as meeting people, going to clubs, associations, parties, meetings, etc.

8.Attitudes

- We have many likes and dislikes and beliefs and opinions which predispose us to behave in certain ways.
- For instance, we might think that studying science at the senior secondary stage is too difficult, or we might think that living in rural India will mean following traditional styles of dressing and behaving etc.

9.Self-Concept

- In the context of learning, the ‘self concept’ of an individual assumes considerable importance since it represents what an individual feels about himself/herself and his abilities to perform and achieve.

- Self concept is a broader term which includes the sub-categories of self-image

10. Learning Styles

- Individual show preference for different learning conditions. These are called learning styles, or learning preferences.

- The learning style theories recognize that individuals learn in different ways and that each individual has a unique style of learning.

C. SOCIO-CULTURAL (ENVIRONMENTAL) FACTORS INFLUENCING LEARNING

1.Family

- Family has the first and most fundamental influence in the socialization process of an individual.

- It is within the family that child learns the behaviour patterns for survival, social skill, attitudes, interpersonal skills, social norms, the do’s and don'ts of his/her culture and community, acquires a sense of right and wrong, a value orientation etc. thus, we can say that the family is the site of all learning

2.Neighborhood

- The neighbourhood and community in which a child lives also have a potent impact on what he/she learns and acquires.

- Many attitudes, habits, beliefs, perceptions, stereotypes and social roles and responsibilities are shaped directly or indirectly by child's experiences with the persons in his/her neighbourhood.

3.Peer group

- A healthy peer relationship also plays an important role in learning. Student relationship in the classroom, school, society, etc. creates a particular type of emotional climate.

- A sound peer relationship provides a tension free environment to the student to learn more and to compete in the class.

D. SCHOOL RELATED FACTORS INFLUENCING LEARNING

- Learning is also assumed to be greatly influenced by the school and the school environment in which students are imparted with different types of learning experiences.
- The term ‘school environment’ encompasses the terms ‘school culture’ and ‘school climate’ that affect the behaviour of teachers and students.

- School culture is the shared beliefs and attitudes that characterize the district wide organization and establish boundaries for its constituent units.

- School climate characterizes the organization at the school building and classroom level.

- It refers to the “feel” of a school and can very from school to school within the same region.

- School culture is based on past experience which provides a template for future action based on “how we do things in this organization.”

- School culture is reflected in an organization’s atmosphere, myths, and moral code.

- A physical environment that is welcoming and conducive to learning;
- A social environment that promotes communication and interaction;
- An affective environment that promotes a sense of belonging and self-esteem;
- An academic environment that promotes learning and self-fulfilment

E. TEACHING-LEARNING PROCESS RELATED FACTORS INFLUENCING LEARNING

1.Methods of Learning

- The methods of learning involve the question of how to study.
- Correct ways of study always enhance learning.
- Effective learning promotes good memory of the corresponding material.
- The quality of learning depends on the abilities of a teacher and a learner to link the present new learning with the past experiences of the learner which helps the learner to assimilate and understand new learning.

- In the same way, one can expect good results in learning, if learning experiences are given in view of seeking correlation among different subjects or areas and with real life happenings and situations.

2. Organisational set-up:

The organisational set-up of the school also influences learning.

i) The time-table must be drawn, in accordance with the psychological principles.

It should avoid fatigue and boredom. Difficult subjects should be taught in the morning. There should be interval after some periods.

(ii) The democratic organisation promotes a healthy atmosphere for learning.

(iii) The teacher-pupil relations should be healthy, so that there is mental cooperation and the

Pupils are motivated to learn.

(iv) There should be some sort of competition. The inter-class or inter- house competitions will stimulate the pupils to work more in order to outshine others.
Rivalry and jealousy should, however, be avoided. Group emulation should be strengthened.

4. Methodology of Instructions:

(i)Presentation and Organisation of Material:

- The learning material should be properly planned and organised. It should be graded to suit the mental level of the pupils. It should be presented in a meaningful and interesting manners.

(ii). Learning by Doing:

- Practice makes a man perfect. Repetition and practice is important for learning. The pupils must be encouraged to learn through activity.
- Theoretical teaching should be replaced by practical application of knowledge, experimentation and personal application. Children learn better through personal experience. Verbalisation should be reduced to minimum.

(iii). Special Methods of Learning:

- It has been found that some special methods give better results. In learning a piece of poetry, learning by the whole method, and by the part method have been advocated.

- Sometimes it is helpful to recall what is learnt and to recite by memory. Gestalt psychologists do not approve of ‘trial and error learning’. They advocate learning by insight. They discourage mechanical repetitions without understanding.

(iv). Timely Testing:

- Through tests, the learner knows his exact achievement, and there is no scope for over-estimation or underestimation. Occasional and periodical testing motivates the pupil to be regular in his studies.

F. Influence of Media on Learning

- These days, children are born, grow up and live in a media dominated world.
- Media have been considered as an important component of transmitting information.
- All media are basically delivery media because they deliver i.e. communicate information from the sender-end to the receiver-end.
- The learner is a receiver and consumer of the information conveyed through the media.
- Media can be broadly divided into two categories: print and non-print media.

- Print media refers to text or printed materials.
- It is economical and has traditionally been used for pedagogical resources.
- But, it may not be the only or the perfect medium to impart education.
- Non-print media, also known as modern electronic media have certain unique qualities which, in certain cases facilitate learning much faster than the print medium.
- These help meet diverse learning objectives more efficiently than the printed matter.
- Certain non-print media formats and delivery systems contribute well to students' learning activities.

INTRODUCTION TO LEARNING THEORIES

Introduction

What is learning theory

Types of learning theories

- It is no secret that psychology developed out of philosophy
- Plato (428 BC–347 BC) proposed the question
- How does an individual learn something new when the topic is brand new to that person?
- Plato answered his own question by stating that knowledge is present at birth and all information learned by a person is merely a recollection of something the soul has already learned previously

- Which is called the Theory of Recollection or Platonic epistemology.
- If a person knows something, they don't need to question it, and if a person does not know something, they don't know to question it
- Plato says that if one did not previously know something, then they cannot learn it.
- He describes learning as a passive process, where information and knowledge are ironed into the soul over time.

- The former provides insights regarding external objects while the latter provides the ideas about them.

- Rousseau's philosophy of education concerns itself not with particular techniques of imparting information and concepts, but rather with developing the pupil's character and moral sense, so that he may learn to practice self-mastery and remain virtuous even in the unnatural and imperfect society in which he will have to live.

- John Locke (1632–1704) offered an answer to Plato's question as well

- Locke offered the "blank slate" theory where humans are born into the world with no innate knowledge and are ready to be written on and influenced by the environment

- The thinker maintained that knowledge and ideas originate from two sources, which are sensation and reflection

- Philosophical psychology has founded to identify the nature of human being
- Later it became science of mental life and the it became psychology and its branches
- It includes clinical psychology educational psychology etc..

- Learning theories
- Learning theories are the theories to describe how students receive process and retain knowledge during learning
- Behaviourists looks at learning as aspect of conditioning behaviour
- Cognitive theory believes that the definition of learning as a change in behaviour is narrow, and study the learner than their environment and human memory

- Constructivism believes that a learners ability to learn relies on what they already know and understand

Behaviourist learning theories
Cognitive learning theories
Constructivist theories of learning

Pavlov's classical conditioning theory
Ivan P Pavlov

- Ivan Pavlov ,a Russian psychologist was the discover of the classical conditioning theory of learning.
- His findings brought about a revolutionary change in the field of learning.
- Conditioning is the modification of the natural response. By conditioning Pavlov modified the behaviour of the dog on which he experimented.
- Now we modify the behaviour of the learners in such a way as the response originally connected with a particular stimulus comes to be aroused by a different stimulus.

Pavlov's Experiment

- Pavlov kept a dog hungry during the night and then tied him on the experimental table which was fitted with certain mechanically controlled devices.

- The dog was made comfortable and distractions were excluded as far as possible.

- The observer kept himself hidden from the view of the dog but was able to view all the movements of the dog by means of a set of mirrors .
- Arrangement was made to give food to the dog through automatic devices.
- Simultaneously with this act of offering the food to him, a bell was rung.
- It was natural that the dog secreted saliva when he saw the food. The saliva went in to the tube and it was measured. The experiment went on for some days.

- After that the bell was rung one day but no food accompanied it.
- The dog secreted the saliva even then. It was observed that the saliva went on coming in the same quantity with the ringing of the bell for some days.
- The actual stimulus to bring forth the response , i.e., the secretion of saliva was the sight of the food but it was conditioned in such a way that another stimulus which ordinarily had nothing to do with secretion of saliva began to stimulate it.

- Food is the ‘natural stimulus ‘as it motivates the dog to respond . His response is secretion of saliva.
- Ringing of the bell is an ‘artificial stimulus‘, also called 'conditioned stimulus’.
- The response of the dog when the bell above is rung is called a ‘conditioned response’.
- Conditioning is thus the modification of the natural response.

✔ The abbreviations used are: NS for Natural stimulus , CS for Conditioned Stimulus.

✔ NR for Natural Response and CR for Conditioned Response.

Principles of Conditioning

1.Principles of Reinforcement:

- The term reinforcement refers to the following of the Conditioned stimulus by the unconditioned stimulus. i.e, food following the bell.
- Pavlov stated that it was only reinforcement that led to the conditioning. Without reinforcing the bell with meat, no conditioning could be developed-this was reinforcement.

- This is applicable to children also. Children's learning becomes effective when they are rewarded immediately after they perform well. Their behaviour is conditioned with reinforcement.

2.Principles of sequence and Time Intervals:

- There is an optimal time between the presentation of the conditioned stimuli and the unconditioned stimuli.
- If there is any variation i.e, increase or decrease in the optimal time, then there is no conditioning and bond cannot be formed.

3.Principles of stimulus Generalisation:

- According to this principle, if we are conditioned to one thing,i.e, the bell, then we would be Conditioned ,more or less, to all sorts of bell In the earlier stages of learning by conditioning the animal respond to a number of stimuli which accompany the exact Conditioned stimulus.

- The response is the greatest to the conditioned stimulus and goes on decreasing to other stimuli which are less similar to the original one.

4.Principle of Differentiation:

- When two stimuli are sufficiently distinguishable, the organism can be conditioned to respond to one of them.

- This is done by regularly reinforcing one stimulus and non-reinforcing the other.

- The organism can be conditioned to react differently to the two stimuli which at first make nearly the same response.

- This is how we learn to react differently to different brands of tea or coffee.

- But in case the organism is pressed too far it causes experimental neurosis.

- In the laboratory, when the dog was made to discriminate between two very thin ellipses it started howling at the experiments.

- It is clear that response to a particular stimulus can be achieved only through selective reward.

5.Principles of Extinction:

- If the sound of the bell is not followed by food, it implies that there is no reinforcement.
- A stage reaches when the dog stops to secrete saliva. This process is called as extinction.
- Pavlov noted in his experiments that when the spacing of test trials was increased, the response extinguished rapidly.

6. Principles of spontaneous Recovery:

- The principle of spontaneous recovery explains that there is no complete extinction on account of the time interval but there is inhibition of CR, when the dog is brought out of the experimental set-up and again put in the set-up after a lapse of time the dog responds to conditioned stimulus (CS)by gastric secretion . This process is called spontaneous recovery

7.Principles of Inhibition:

- Inhibition may be defined as a process in which a stimulus inhibits a response that would otherwise occur Pavlov mentions two types of inhibition.

.External Inhibition:

- Once the dog was conditioned, it was found not to give conditioned response in the presence of some stranger.

- Often we come across cases when pupil-teachers fail to deliver a well prepared lesson in the presence of their supervisors.

.Internal Inhibition:

- Pavlov observed that CR in extinction did not represent dying of the reflex or any real weakening of the learned SR connections.

- It was blocked by some internal inhibitory process.

- For example, physical health of the organism or pre-occupation with some other activity etc. may block the response.

8.Principles of Higher Order Conditioning:

- When conditioning is done to a new stimulus on the basis of a previous conditioned stimulus it is designated as higher order conditioning.

- By this process Conditioning becomes difficult if the process is carried too far.

9.Principles of Secondary Reinforcement:

- Conditioned response is established to some stimulus other than the primary one, example: food elicited salivation.
- By repeated presentation it was found that sight of food led to salivation oral part response.
- It is called secondary reinforcement.
- Secondary reinforcement plays an important role in later learning especially in the case of children when the reward may be no more than a kind word or some other gesture or some token reward.

10.Principles of Age and Conditioning:

- The process of conditioning is valuable at all ages but especially in early childhood.

Class Room Implications

- A child learn through conditioning. A child who fears a particular object or subject can be made to seek pleasure from it.

- Through conditioning, we can dispel fear and hatred and create love towards subject or object.

- A teacher of English, with his defective methods of teaching or improper behaviour may be disliked by a particular student or a group of student or a group of students.

- He may have developed the habit of rebuking children while returning the checked assignment or listening to their answers.

- Gradually the students develop hatred for the subject as well as the teacher.

- On the other hand, a friendly and sympathetic teacher will have a positive impact on the students through the process of conditioning.

- The students develop positive attitudes towards the subject and the teacher.

- The use of audio visual aids in the teaching learning process involves the conditioning theory.

- For instance, the teacher shows the picture of a cow, along with the written word 'cow'. The teacher speaks out the word cow and ask the students to say 'cow', every time the picture is presented. After some time ,the picture of cow is not presented, only the written word cow is shown.
- But the child responds to it by saying cow.

- He associates the written word cow with the picture of the cow and the sound of the word.
- Principles of classical conditioning are very helpful in developing good habits in children- habits of cleanliness, punctuality, respect for others.
- Bad habits can be eliminated through conditioning. Most of the learning is acquired in social environment.
- Principles of classical conditioning can be used to deconditioning bad habits like fear and anxiety in children.

- Classical conditioning can be used for developing favourable attitude to subjects, teachers and above all the school.

Pavlov's Theory Of Conditioning Is Criticised On Two Grounds

(i)All learning is not conditioning, and on the other hand ,it is an active process.

(ii) Learning needs intelligence and understanding but conditioning ignores it by and large.

DRIVE REDUCTION THEORY
(Behaviourism)

 Need reduction
 This theory states that organism ,especially humans learn to perform.
Behaviour that have the effect of reducing their biological drives.

Biography

- Clark Leonard Hull (May 24, 1884 –May 10, 1952) He was an influential American psychologist And learning theorist in behaviourism.

- He sought To explain learning and motivation by scientific laws of behaviour.

- Clark Hull's most important contribution to psychology lies in his theory of learning, considered one of the most important learning and motivation theories of the twentieth century .

- Clark aspired to be a great engineer, but that was before he fell in love with the field of Psychology .

- Hull developed a version of behaviourism in which the stimulus (S) affects the organism (O) and the resulting response (R) depends upon characteristics of both O and S.

- In other words, Hull was interested in studying intervening variables that affected behaviour.

- Like other forms of behaviour theory, reinforcement is the primary factor that determines learning.

- However, in Hull's theory, drive reduction or need satisfaction plays a much more important role in behaviour than in other frameworks (i.e., connectionism, operant conditioning).

Drive Reduction Theory (Behaviourism)

Hull's drive reduction theory is based upon his mathematical formulation
Known as: Hull's law

- The equation reads as follows :

E = H x D

where E = Energy or Response Potential : The energy for performing the behaviour , which is directly related to the probability of the behaviour being completed .

H = Habit : the strength of particular stimulus-response association

D = Drive : the strength of biologically – based homeostatic need

- Hull in later years decide to rename his drive reduction theory to be called Drive stimulus reduction theory ,
- to emphasize the reduction or complete Removal of stimuli elements from the drive that occurs upon the organism Completing a correct response sought after on the part of the experimenter .

- Hull believed that human behaviour is a result of the constant interaction between the organism and its environment.

- The environment provides the stimuli and the organism responds .

- According to theory this case described by Miller & Dollard (1941): A six year old girl who is hungry and wants candy is told that there is candy hidden under one of the books in a bookcase.

- The girl begins to pull out books in a random manner until she finally finds the correct book (210 seconds). She sent out of the room and a new piece of candy is hidden under the same book.

- In her next search, she is much more directed and finds the candy in 86 seconds. By the ninth repetition of this experiment, the girl finds the candy immediately (2 seconds).

- The girl present a drive for the candy and looking under books represented her responses to reduce this drive.
- When she eventually found the correct book, this particular response was rewarded, forming a habit.
- On subsequent trials, the strength of this habit was increased until it became a single stimulus-response connection in this setting.

- Doctoral research on "Quantitative Aspects of the Evolution of Concepts" was published in Psychological Monographs.

- An analytical study of the effects of tobacco on behavioural efficiency .

- Principles of Behaviour(1943), which presented a number of constructs in a detailed Theory of Behaviour , became the most cited psychologist.

- Mathematic-Deductive Theory of Rote Learning (1940)

- Hull's learning theory focuses mainly on the principle of reinforcement when a S-R relationship is followed by a reduction of the need, the probability increases that in future similar situations the same stimulus will create the same prior response.
- Reinforcement can be defined in terms of reduction of a primary need .
- The Logical deductive theory is a reference to how Clark hull developed his learning theory (drive reduction theory) .

- According to Watson , the organism is empty and brain physiology merely connects stimulus with response.

- Watson's rejection of unobservable events inside the organism body and brain) was unscientific , hull believed .

- Hull proposed that since we cannot observe the mediating events inside the organism, it does not mean that they do not exist.

- Operationally defined mediating events, like hunger are intervening variables that reside in the organism and are caused by factors like food deprivation, thus they can effect behavioral change like learning.

- Later Hull totally agrees with Watson in stating that these intervening variables are not mind or mental events.

- Thus (mental) feeling of hungriness was not important to Hull, but hunger as food deprivation was, because it could be measured and tested to explain behaviour, after that defined
- (neo behaviourism)

Intervening Variable (Behaviourism)

- In Clark Leonard Hull's drive reduction theory , the intervening variables is anything that can come between a stimulus and response or anything that can inhibit a response .

- The variable could be an external event , an inhibiting factor in test environment , or physical factor with the organism , such as boredom or fatigue .

- In other words , the effect of eating food must reach the brain before the hunger drive is reduced

HULL THEORY IN EDUCATION

Drive : the learner must want something
Cue : the learner must attend to something
Response : the learner must do something
Reinforcement : the Learner's response must get him/her something that he or she wants

Behaviourist Perspective On Strategies That Facilitate Learning.

- Behaviourism focuses on the idea that all behaviours are learned through interaction with the environment.

- This learning theory states that behaviours are learned from the environment, and says that innate or inherited factors have very little influence on behaviour.

- The behaviourist theory can motivate students to do well in terms of schedules of positive and negative reinforcement.

- Good behavioural practices cause learners to make the desired connections between specific stimuli and the appropriate responses.

- We can use behaviourist theories in the way we teach students to revise for exams.

- Behaviourism can also be thought of as a form of classroom management.

- Behaviourists believe that if teachers provide positive reinforcement, or rewards, whenever students perform a desired behaviour, they will learn to perform the behaviour on their own.

- The same concept applies to punishments.

According to the behavioural science approach, the teacher must be able to:

- Focus instruction on observable learner performance.
- Assure that learners can perform the skills that are prerequisites to that performance.
- Elicit a rapidly paced, correct performance.
- Use appropriate consequences following performance.

SOCIAL LEARNING THEORY

ALBERT BANDURA

- The social learning theory was proposed by albert bandura.

- Albert bandura (Born December 4,1925)is a Canadian –American psychologist who is the David Starr Jordan professor emeritus of social science in psychology at Stanford university.

Born :4 December 1925, Mundare, Canada.

Known for: Social Cognitive Theory
self –efficacy, social learning theory
and more

Education: the university of low a (1952),the university of low a (1951)and the university of British Columbia(1946-1949)

Awards: Guggenheim fellowship for Social Sciences, US and Canada and national medal of science for behavioural and social science.

Disciple: Richard Walters

What is social learning theory

- Social learning theory is a theory of learning process and social behaviour which proposes that new behaviour can be acquired by observing and imitating others.

- He stressed the importance of observational learning, imitation and modelling.
- Observational learning is simpler and easier compared to deliberate conscious learning.
- Banduras theory claims that children will identify and mirror the behaviour of any person .
- In social learning theory ,albert bandura agrees with the behaviourist learning theories of classical conditioning and operant conditioning.

1)Real life models: under this category we can include parents, teachers, friends etc.

2)Symbolic models: they include verbal materials, Pictorial representation(film and TV),written materials, books, magazines and works of art.

- Both types of models are equally effective in learning

Steps In Observational Learning

1)Attention:

- If attention the learner has to pay attention to the distinctive features of the model . This is important for effective sensory registration.

2)Retention:

- In retention the internalized representation of the modelled behaviour is registered. The learner, in order to get integrated with the behaviour of the model, must retain the learning acquired by attention.

3) Performance:

- In performance the internalized symbolic representations are converted into actual performances or actions of various types. Overt performances involving motor responses are produced by imitation.

4)Reinforcement:

- In reinforcement favourable incentive conditions such as encouragement , appreciation and other rewards facilitate activation of overt performance.

- Meaningful feedback and other positive reinforces influence selective attention and retention and controlled reproduction for the sake of better outcome.

Conclusions drawn regarding conditions of observational learning

- Warm and nurturing adult models tend to be imitated more than models who are less nurturing.
- Male model tend to be more readily imitated than the female model.
- Higher status models tend to elicit greater observational learning than lower status models.
- Peer-groups and institutions and organisations have powerful effects on imitation.

- Symbolic and verbal depictions of model behaviour have been shown to have potency for effecting imitative learning almost equal that of live situations.

- The performance of observed behaviour is influenced by three kinds of incentives. They are

1)Direct Reinforcement

2)Vicarious Reinforcement

3)Self-administered Reinforcement

1. Direct Reinforcement

- According to Bandura and Walters, the most fundamental and significant principle of social learning is the principle of reinforcement.

- Occurs when an individual watches a model perform ,imitates that behaviour and is reinforced or punished by some individual ,this is called direct reinforcement.

- The scope of responses acquired through reinforcement is unlimited. With appropriate reinforcement imitative behaviour could be made to occur with a higher frequency than before.

2. Vicarious Reinforcement

- Consider that a person observes the actions of another person (model)who himself is reinforced or punished for his/her action , by a third person. Here the observer of the model also gets reinforced along with the model by merely observing how the latter is getting reinforced in the given situation.

- This means that an individual may be reinforced without directly producing a behaviour or experiencing a consequence.

- This type of reinforcement they called vicarious reinforcement.

❖ Example :a younger sister observing an older sister being rewarded for a particular behaviour is more likely to repeat that behaviour herself.

- This is known as vicarious reinforcement.

3. Self- Administered Reinforcement

- According to Bandura and Walters self-administered reinforcement also plays a significant role in observational learning.

- In many situations the individual sets a standard for self-reinforcement.
- Children and adolescents tend to adopt standard of self-administered reinforcement , which matches the standards of the models to which they have been exposed.
- Example : a boy saying “I would play like Sachin ”

The Bobo Doll Study

The Bobo Doll Study

- In a famous and influential experiment known as the bobo doll experiment,Albert Bandura and his colleagues able to demonstrate one of the ways in which children leam aggression.
- The experiment involved exposing children to two different adult models;an aggressive model and a non-aggressive one.
- After witnessing the adults behaviour ,the children would then be placed in a room without the model and were observed to see if they would imitate the behaviour they had witnessed earlier.

Method

- The participants for the experiment were 36boys and 36 girls enrolled at the Stanford university nursery school.
- The children ranged in age between 3 and almost 6 years ,and the average participant age was 4years 4months.

- There were a total of eight experimental groups. Out of these participants,24 were assigned to a control group that received no treatment.
- The rest of children were then divided into two groups of 24 participants each. One of the experimental groups was then exposed to non-aggressive models.

- Finally, these groups were divided again into groups of boys and girls. Each of these groups was then divided so that half of the participants were exposed to a same-sex adult model and the other half was exposed to an opposite-sex adult model.

- Before conducting the experiment, Bandura also assessed the children existing levels of aggression. groups were then matched equally so that they had an average level of aggression.

Result

- Boys who observed an adult male behaving violently were more influenced than those who had observed a female model behaviour aggressively.

- Interestingly ,the experimenters found in the same sex aggressive groups , boys were more likely to imitate physical acts of violence while girls were more likely to imitate verbal aggression.

- Children exposed to the violent model tended to imitate the exact behaviour they had observed when the adult was no longer present.

- Bandura and his colleagues had also predicted that children in the non aggressive group would behave less aggressively than those in the control group.

- The researchers were also correct in their prediction that boys would behave more aggressively than girls . Boys engaged in more than twice as many act of aggression than the girls.

Educational Implications

- ✔ Observational learning helps in increasing knowledge of learners, retention and life skills.
- ✔ Students often learn a great deal simply by observing other people.
- ✔ Modelling provides an alternative to shaping for teaching new behaviours.
- ✔ Teachers to expose students to a variety of other models.

- ✔ Vicarious reinforcement , modelling can be used by teachers to increase and focus learners attention.

- ✔ Teachers and parents must model appropriate behaviours and take care that don’t model inappropriate ones.

Kurt Lewin’s Field Theory of Learning

KURT LEWIN
German Psychologist
9 September 1890 – 12 February 1947
Founder of social psychology

LIFE SPACE

- Life space is a psychological representation of individual's environment.

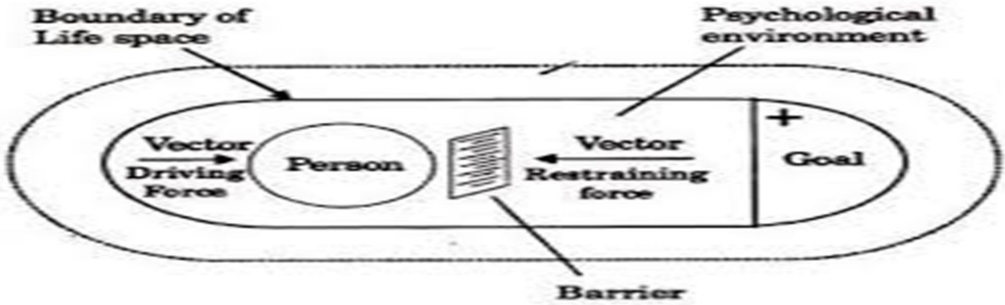
- The life space includes the person himself and everything in his environment that influence his behaviour.
- It includes both the things of which he is consciously aware and the factors which influence him even though he is unconscious of them .
- An object which exists, but of which the person is not aware and which does not influence him would not be a factor of his life space.

- Similarly if an object does not exist but of which the person thinks to be there and reacts to it becomes a part of his life space .

- Eg: If a child thinks that there is a snake on the floor even if it is imaginary, it is the part of his life space.

- It includes the persons , his drives, motives, believes, tensions, thoughts, feelings and his physical environment which consist of perceived objects and events.

- The life spaces of two persons in an identical situation may be entirely different.



A PERSON IN LIFE SPACE

The person is often represented as a points moving about in his life.

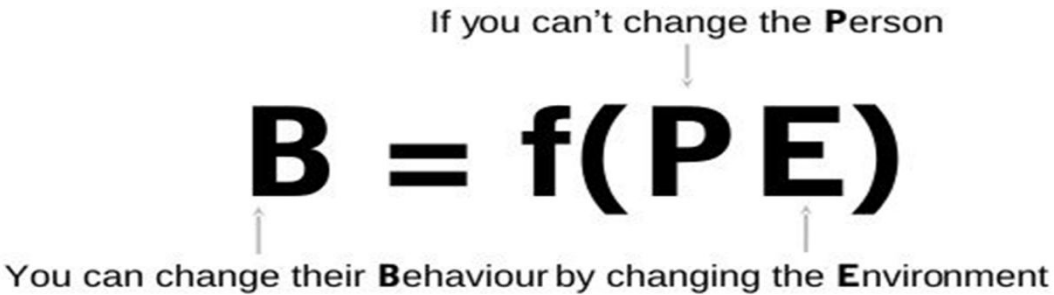
Psychologically a person is composed of two components

- ❖ Motor perceptual stratum(abilities)
- ❖ Inner personal stratum(needs)

BARRIERS

- A barrier is a psychological obstruction.
- They restrict the person's movement towards the goal, and the path he must follow to reach his goal.
- It may be objects, people, social codes anything which threatens the motivated individual as he is moving towards a goal.

Mathematically Represented as:



EDUCATIONAL IMPLICATION

- The teacher should present the whole problem and evoke the cognitive and emotional readiness in the learners for optimum learning.

- In order to achieve optimum communication and meaningful give and take, a teacher should try to workout the life space of each student in his class.

- Motivation is an important factor in bringing changes in the cognitive structure of a student In order to motivate the students, the teacher has to identify both the driving as well as the restraining forces present in the life space of each student.

- Teacher should organize his instructional strategies in a manner which will be at the level of ‘exploratory’ rather than ‘explanatory understanding.’

- A change in structure of knowledge may occur with repetition. Too much repetition does not aid learning so teacher should take steps to avoid repetition.

- Teacher should use reward and punishment according to the needs of the situation as Lewin accepted the value of reward and punishment in learning.

Theory of Instruction
~ Robert M. Gagné

Robert Mills Gagné
Robert Mills Gagné (August 21, 1916 – April 28, 2002) was an American
educational psychologist best known for his "Conditions of Learning".

- Gagné pioneered the science of instruction during World War II when he worked with the Army Air Corps training pilots.
- He went on to develop a series of studies and works that simplified and explained what he and others believed to be 'good instruction.'

The Meaning and Concept of Learning

- Learning, according to Gagne, may be considered a change in human disposition, or capability which can be retained and which is not simply ascribable to the process of growth.

- The major task or objective of one's learning is to bring the required change in his way of disposition (tendency to behave in certain ways in given situations) or the capability of performing one task or the other.

- The result or impact of learning, thus may be subjected to proper measurement since these can be properly observed and inferred by observing the difference in performance of the learner before and after learning.

- These changes in behaviour or ability and potential of the learner are somewhat enduring, as the learner is capable of utilising and benefitting through the outcomes of such learning.

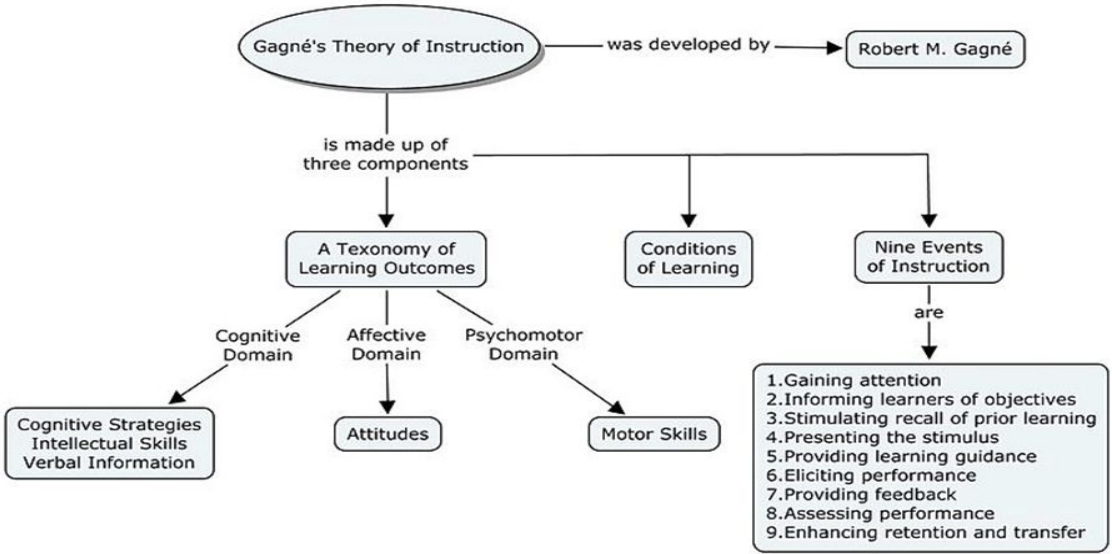
- In any case, this is an acquired tendency which cannot be simply associated with the process of natural growth, i.e maturation etc.

The Outcomes of Learning

Learning, according to Gagne, is supposed to result in the enhancement of a person's performance and capabilities by acquiring new ways of behaving (gaining in terms of knowledge, understanding, skills and change of attitudes etc.).

He declared that all types of human learning may result in the development of human capabilities in terms of the following five components:

1. Verbal information
2. Intellectual skills
3. Cognitive strategies
4. Motor skills
5. Attitudes


Gagné's Theory of Instruction
was developed by
Robert M. Gagné
is made up of three components
A Texonomy of Learning Outcomes
Conditions of Learning
Nine Events of Instruction
are
Cognitive Domain
Affective Domain
Psychomotor Domain
Cognitive Strategies
Intellectual Skills
Verbal Information
Attitudes
Motor Skills
1.Gaining attention
2.Informing learners of objectives
3.Stimulating recall of prior learning
4.Presenting the stimulus
5.Providing learning guidance
6.Eliciting performance
7.Providing feedback
8.Assessing performance
9.Enhancing retention and transfer

Let us know in detail about these outcomes of learning

1. Verbal information.

- Through one's learning one may acquire different types of information in a verbal form (listening, viewing and reading).
- One may then make use of this information for one's own purposes or transmit it to others through verbal means (spoken or written).
- Verbal communication of the acquired information then may prove helpful in many ways to the learner.

2. Intellectual skills.

- Another outcome of learning is that it helps the learner acquire necessary intellectual skills Gagne (1970) has further classified these intellectual skills into levels or types, e.g. discrimination, concept formation, and rule learning.
- According to him, these skills assist the learner in "knowing how in comparison to "knowing that of (verbal) information, that is, how to convert decimals into fractions, how to interpret various symbols on a page into recognized words, and so on.

3. Cognitive Strategies.

- These refer to the internally organized capabilities of a learner, which he acquires through the process of learning. These strategies help him in the tasks related to attending, learning, remembering, thinking and problem solving, leading him to attain his individual and social goals.

4. Motor Skills

- Learning affects the conative domain of a person's behaviour by bringing the required changes in the way he does things through motor activities .

- His learning to drive a car, swimming playing a musical instrument or playing a game are all the outcomes of acquisition and development of his motor skills.

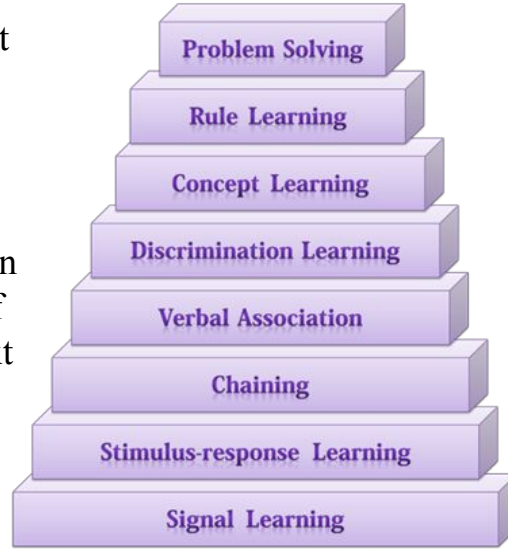
5. Attitudes

Learning helps the learner to bring significant changes in the affective domain of his behaviour particularly in terms of the change in his deposition or attitude is that is attitude towards things, persons or events.

Gagne's Hierarchy of Learning

- Gagne maintained that all learning's are not alike and, consequently, he divided human learning into eight types or categories arranged in hierarchy.

- He gave them a hierarchical order based on their internal connections since one type of learning provides a prerequisite for the next higher order learning.



- While presenting such a hierarchical order, Gagne tried to guide the process of learning and instructional organisation by emphasizing that in learning, the lower steps of hierarchy must be mastered before the higher steps can be learned.

- Gagne's theory of learning provides a genuine basis for the proper organisation and sequencing of instruction

❖ **Signal Leaning (Classical Conditioning)**

- Here the individual learns to make a diffuse response (general emotional response) to a signal or stimulus.

Example: An infant smiles at the sight of its mother.

❖ Stimulus Response Learning (Operant Conditioning):

- It involves the building up of connection between a stimulus and a response. Here the learner is learning to make precise movement of the muscle in response to specific stimulus.

Example: A child says papa at the sight of his father. This verbal response involves precise movements of lips and tongue.

❖ **Chain Learning**

This consists in connecting a series of previously learned S-R connections in sequence.

Example: A child learns to

a) begin writing his name with a capital letter,

(b) connect the other letters of his name, te cross the t,

(d) dot the i, to write Martin.

Virtually all the learning takes place in formal education is verbal learning.

❖ Verbal Association

- This is a sub variety of chaining that occurs when the stimuli and responses in chain learning consists of words.
- Example: A child learns the Malayalam equivalent of English words.

❖ Discrimination Learning

- In this type of learning the learner acquires the ability to distinguish two set of stimuli or situations so as to make the response appropriate to each member of the set.
- Example: The child learns to distinguish between his mother and his aunt.

❖ Concept Learning

- In this, the learner acquires a capacity to respond to stimuli that a class of objects share in common. Here generalisation within classes and discrimination between classes are learned by identifying abstract characteristics like colour, shape, position etc.
- Example : The child learns the concept bird. He distinguishes a bird from a mammal.

❖ Principle Learning

- ❑ This involves the acquiring of knowledge and understanding of a relationship between concepts.
- ❑ Example: A child learns the principle: metals expand on heating.[Principles are chains of concepts. The above principle contains three concepts - metal, expansion and heat).

❖ Problem Solving

- This comes at the highest stage in the hierarchy of learning process. It places the application of the principles that have already learnt, in order to achieve some goal.
- Example: A boy proves theorems in geometry.

Conditions or Events of Learning

- Gagne, through his theory of learning and instruction, emphasized that different internal and external conditions or events are necessary for each type or level of learning.

- Internal conditions, according to him, are those capabilities which are already possessed by a learner on account of his previous learning, physical stamina, and mental and emotional make-up.

- External conditions represent those things and elements in his environment which affect his learning outcomes from outside.

- Good learning, in terms of its required outcomes, thus requires a proper organisation of these internal and external conditions of learning.

- As favourable internal conditions, we can consider the learner's interest, motivation, his mental and physical and emotional makeup, and previous learning (learning prerequisites that facilitate present learning).

- In terms of favourable external conditions, one should look for favourable teaching-learning strategies and environmental situations. For example, for learning cognitive strategies, a learner must be given opportunities to enhance his thinking skills, and use novel methods for doing things and solving problems.

- Similarly, for learning attitudes, the learners may be exposed to a credible role model or persuasive arguments

Nine Events of Instruction

- Gagne, while emphasizing the need for a proper theory of instruction, proposed that such a theory of instruction must be based on the hierarchical structure of the events of learning.

- How the information is processed by the learner may work towards planning the task of instruction (either for self-learning or through an instructor or teacher).

- What goes on inside the learner's mind (in the shape of various cognitive processes) during the teaching-learning process may be termed as internal events.

- These events must be fully taken into consideration (along with the external conditions or events in the shape of desired teaching-learning environment) while planning the corresponding instructional procedures.

GAGNE'S NINE EVENTS OF INSTRUCTION

1.Gain attention - show a variety of triangles (drawing figures illustrating models or computer generated figures).

2.Identify the object - pose question: "What is an equilateral triangle

3.Recall prior learning review - definitions of triangles.

4.Present stimulus - give definition of equilateral triangle

5.Guide learning - show example of how to create an equilateral triangle

6.Elicit performance - ask students to create five different examples

7.Provide feedback - check all examples as correct/incorrect.

8. Assess performance - provide scores and remediation.

9.Enhance retention/Transfer - show pictures of objects and ask students to identify equilaterals.

Educational Implications

1. The teaching-learning activities should be so arranged that it should go in accordance with the mental abilities of the learner at each level of the learning hierarchy.

2. The formal education should be planned hierarchically on the basis of the increasing complexities of the different types of learning. So that what is acquired at one grade act as a foundation for the learning in subsequent grades

3. Since learning of a higher order theory requires one's prior learning of simple theories on which it is based: teachers can analyse any significant learning acquired by a learner into a progression of subordinate learning.

4. According to Gagne, each variety of learning begins with a different state of the organism and ends with a different capability of performance. Hence the teacher should ensure that the learner has acquired the necessary initial state of learning before he is introduced to subsequent level of learning.

5. Due weightage should be given to the learning hierarchy while framing curriculum. Different areas of curriculum will have different hierarchical arrangements of instructional objectives.

6. According to Gagne, for each phase of learning certain internal processes occur in the learner's central nervous system. The internal process may be influenced by external events in the form of environmental stimulation. The role of the teacher is to plan and control these external events. Hence Gagne considers a teacher as a designer and manager of instruction and an evaluator of student learning.

MEANINGFUL RECEPTION LEARNING

- David . Ausubel was born in 1918
- Grew up in Brooklyn, New York

- Attended the University of Pennsylvania, taking the pre- medical course and majoring in Psychology
- In 1973 he retired from academic life to devote full time to his psychiatric practice
- His principle interests in psychiatry have been general psychopathology, ego development, drug addiction, and forensic psychiatry.

- In 1976 he received the Thorndike Award from the American psychological Association for " Distinguished Psychological Contributions to Education"

Introduction

- Supported the theory that pupils form & organise knowledge by themselves
- Emphasized the importance of verbal learning/ language-related learning which he consider to be very effective for pupils of the age 11 or 12 & above
- Pupils gradually learn to associate new knowledge with existing concepts in their mental structures
- To ensure meaningful teaching, necessary to avoid rote memorising of facts. Pupils need to manipulate ideas actively

Advance Organiser

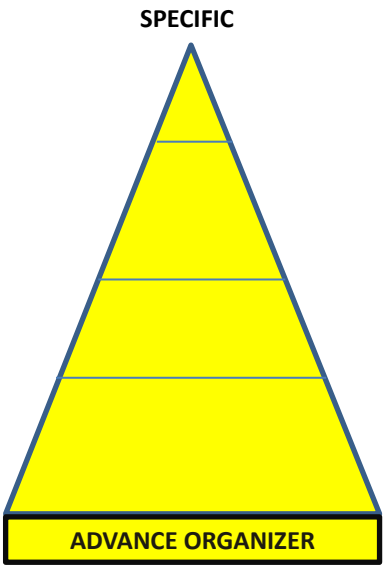
- Presents an overview of the information to be covered in detail during the exposition that follows
- Can be Classified : exposition or comparison type

Advanced Organizer of the Exposition Type

- While presenting new material.
- Use beginning of lesson.
- Presents several encompassing generalisations where detailed contents will be added later.

Advance Organizer of the Comparison Type

- Useful when the knowledge to be presented is new to pupils
- Compares new material with knowledge already known by emphasising the similarities between 2 types of material & showing the information that is to be learnt.
- Ausubel's teaching approach is deductive in nature



Deductive Teaching Model : Advance Organizer as the basis of the lesson

Step 4: The pupils study specific examples

Step 3 : The teacher presents examples

Step 2: The teacher explains important terms

Step 1: The teacher presents general statement or abstraction of lesson

Meaningful Reception Learning Theory

- A concerned with hoe students learn large amounts of meaningful material from verbal/ textual presentations in a learning activities
- Meaningful learning results when new information is acquired by linking the new information in the learner's own cognitive structure
- Learning is based on the representational, superordinate and combinatorial processes that occur during the reception of information
- A primary process in learning is subsumption in which new material is related to relevant ideas in the existing cognitive structure on a non-verbatim basis (previous knowledge)

The Processes of meaningful learning

Ausubel proposed four processes by which meaningful learning can occur:

- Derivative subsumption
- Correlative subsumption
- Superordinate learning
- Combinatorial Learning

Derivative Subsumption

Describe the situation in which the new information pupils learn is an instance or example of a concept that pupils have already learned.

Example (Stage1):
PREVIOUS KNOWLEDGE : Let's suppose Ali have acquired a basic concept such as "tree" – have green leave, branch, fruits

- Ali learn about a kind of tree that he have never seen before "persimmon tree" – conforms to his previous understanding of "tree"
- His new knowledge of permission trees is attached to the concept of tree, without substantially altering that concept in any way

Correlative Subsumption

More “valuable” learning than that of derivative subsumption, since it enriches the higher-level concept

Example (Stage 2) :
Now, let’s suppose Ali encounter a new kind of tree that has red leaves, rather than green

Accommodate this new information Ali have to alter or extend your concept of “tree” to include the possibility of red leaves.

Superordinate Learning

Example (Stage 3) :
Ali was well acquainted with maples, oaks, apple trees etc., but pupils still did not know, until they were taught that these were all examples of deciduous trees

- In this case, you already knew a lot of examples of the concept, but you did know the concept itself unit it was taught to pupils.

Combinatorial Learning

Example (Stage4)

Ali learn about modification on the plants part, Ali might relate it to previously acquired knowledge of how papyrus tree used to produced paper

- It describes a process by which the new idea is derived from another idea that is comes from his previous knowledge (in a different, but related, “branch”)

- Students could think of this as learning by analogy

Principles of Ausubel's Meaningful Reception Learning Theory within a classroom setting

General ideas of a subject (general statement)
Must be presented first
Then progressively differentiated in terms of details and specificity

Instructional materials:
Should attempt to integrate new material with previously presented information
Using comparisons and cross- referencing of new and old ideas.

Advance Organizers:
Instructors should incorporate advance organizers when teaching a new concept

Examples:
Instructors should use a number of examples and focus on both similarities and differences

MASTERY LEARNING

❑ HISTORICAL BACKGROUND

- Carlton Washburne (Winnetka plan-1922) -modes of instruction
- Henry Morrison's plan(1926)- objectives of instruction
- Carrol model (1963)- time and perseverance & factors of learning

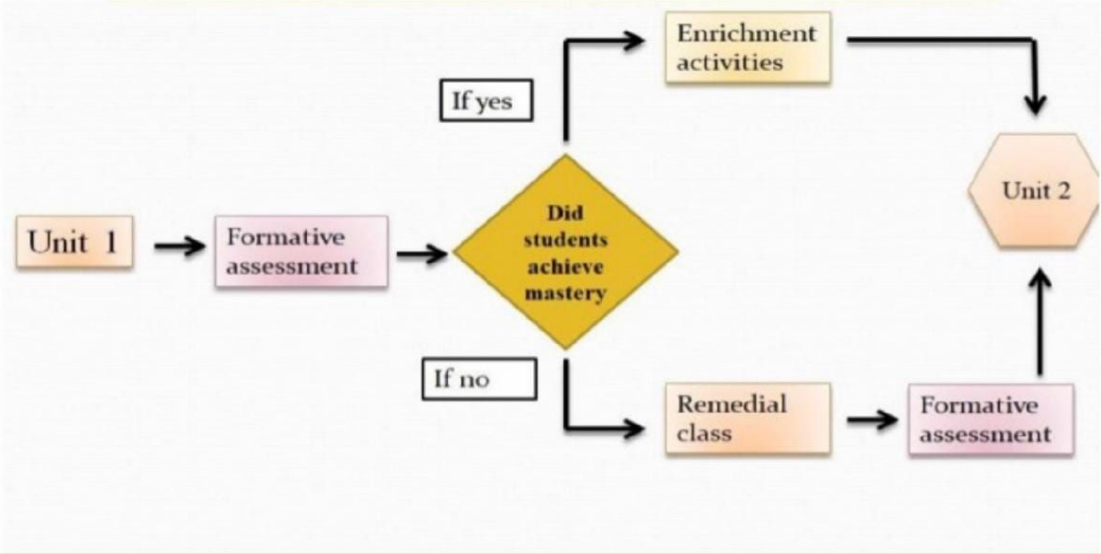
❑ MASTERY LEARNING

- Mastery learning refers to the learning method in which students have to master material units step-by-step.
- They have to master or comprehend a unit or an objective until they master it.
- The concept is simple – students master concepts and skills before going on to other learning.

BLOOM'S MODEL OF MASTERY LEARNING

- Bloom observed that the slowest 5% of youngsters requires as much as five times longer to learn material than the fastest 5%.
- Mastery learning is accomplished by helping students where and when they have difficulty.
- Allowing students the time they individually require to learn.
- Defining clearly what is it that the student is expected to learn and to what level.

Mastery Learning Model



DISADVANTAGES

- Not all will progress at same pace- this requires students who have demonstrated mastery to wait for those who have not or to individualise instruction.
- Must have a variety of materials for remediation
- Must have several tests for each units.
- If only objective test are used can lead to memorising and learning specifics rather than higher level of leaning.

COGNITIVE STRATEGIES IN INSTRUCTION AND LEARNING

- Cognitive strategies are one type of learning strategies that learners use in order to learn more successful.

- It includes repetition, organizing, new language, summarizing meaning, guessing meaning from context, using imagery for memorization.

- All of these strategies involves deliberate manipulation of language to improve learning

THE CLASSROOM ACTIVITIES RELATED WITH COGNITIVE STRATEGIES.

MIND MAP

- It is a diagrammatical representation used to represent only one single idea.
- Mind map is used to many activities related with education.
- Also helpful to develop the writing skills of learners.
- It helps you think, collect knowledge, remember and create ideas.

VISUALIZATION

- It refers to our ability to create pictures in our heads based on what we hear.
- This method is a strategy to teach the young students who are having trouble in reading.

MNEMONICS

- Mnemonics are techniques for improving memory.
- They are memory aids or recall techniques.
- It can be a word, sentence, poem, pictures etc.

SUMMARIZING

- It helps to integrate the central ideas in a meaningful way.

IMAGERY

- It is the use of figurative language to represent an idea or concept.

REHEARSAL

- It refers to the cognitive process in which information is repeated over and over as a possible way of learning and remember it.

DECODING

- The act or the process of converting something from a coded form into a normal form.

The work of JEAN PIAGET
Development of the Intellect (Cognitive Development) by Piaget

- Jean Piaget (1896-1980) a Swiss Biologist had profound interest in Genetic Epistemology, a branch of Philosophy. Later, he developed a keen interest in child and cognitive psychology.

- In 1920, he associated himself with the Binet Testing Laboratory in Paris; here he got the opportunity to think about the nature of the development of intellectual abilities in children.

- “He defined intelligence as the ability to adjust, adapt or deal efficiently with, one’s environment.”

- The concept of intelligence for Piaget involves adaptation to the environment, and indeed the gaining of knowledge is of primary importance in facilitating this adaptation.

- Piaget along with his wife devoted almost all the precious years o their early married life to studying the intellectual development of their own three children by making them the subjects of their laboratory studies.

(Laurent, Lecienne & amp;Jacqueline)

- Infants are thought capable of representing their world from the earliest moments.

- Such representations are referred to as Schemata (a single representation is a Schema), these are essentially mental plans, which serve to guide actions.

- In a neonate, schemata involve relatively simple actions such as sucking, grasping, and looking, which at this stage are mainly reflexes.

- With increased experience, schemata become more elaborate, and new ones are formed as the child deals with object and events .As adults, our schemata enable us to execute complex sequences of events.

- Like schemata, operations are modes of representing information mentally. Operations are not present in the new born child, but it acquired in middle\late childhood. (7-8years)

- According to Piaget, adaptation is brought about by a continual striving to achieve balance or harmony with his or her surroundings. This comes about through the complementary processes of Assimilation and Accommodation.

- Assimilation usually means to take in or incorporate, and in Piaget's theory refers to the individual's efforts to deal with new objects or events in the environment using already existing schemata. (Ex. For young child that object moving in the sky are called birds, then the next time a bird is seen this will be assimilated, as it fits the schema for such objects.)

- Instead the existing schema is modified to cope with the new situation, a process referred to as accommodation, (ex. However, imagine one occasion when the young child looks up to see an aeroplane, because of its different features this cannot be assimilated).

- Piaget claims that adaptation results in a state of harmony or balance (known as Equilibrium), which arises following the assimilation or accommodation of a new object or event.

Stages of Intellectual development. (Piaget's stage theory)

- For Piaget, cognitive development lakes place over a series of four, qualitatively distinct, periods or stages, each characterized by certain accomplishments.

❖ Piaget assigned approximate ages to each stage

Name of stages	Approximate age
▪ Sensori - Motor Stage	Birth to 2 years
▪ Pre Operational Stage	2-4years
▪ (Pre-Conceptual Phase) & (Intuitive Phase)	4-7 years
▪ Concrete Operational Stage	7-12 years
▪ Formal Operational Stage	12 years onwards

A) Sensori- Motor Stage (Birth to 2 years)

- It is characterized by the absence of language and it is limited to direct sensory and motor interactions with the environment, the cognitive development occurs along the following pattern-

a) At birth the infant exhibits a limited number of uncoordinated reflexes such as sucking, looking and grasping.

b) b) During the next 4 months the uncoordinated reflexes are coordinated in to simple schemas. (ex. the infant now tries to suck anything which is put in to his mouth , grasps all that is put in to his hands etc.)

c) By the age of 8 months, the infant is able to react to objects outside him self. He begins to realize that the objects around him are independent and permanent existence.(Object permanence developed).

Pre- Operational Stage-(2-7 years)

- In this stage, the learning of the language provides him with a good tool for thinking.
- He begins to utter words to ask for something rather than just reaching out to get it.

This stage can be divided in to Two-

a) The Pre-Conceptual Phase (2-4yrs)

This is the period of the rudimentary concept formation & is characterized by-

- In the early part of this stage the children usually make mistakes in this process of identification and concept formation.(ex. They think all men as daddy, all women are mommy)
- Their mode of thinking and reasoning is quite illogical at this stage (ex. All big animals with 4 legs and a long tail considered as cow)

- Their thinking is sometimes too imaginative and far removed from reality (Block of wood as riding horse, stick may be gun etc.)

- More over at this stage they are unable to distinguish between living and non-living objects. (Ex. Doll in their hand is a live baby)

- And intellectual structure of the child a this stage is concerned with his egocentric nature.

b) Intuitive Phase

- This stage, formation of concepts at a more advanced level. (Now he will agree that apples, oranges and bananas are all fruits and are of difference in shape, colour, or taste).

- The child's thinking at this stage is not logical and is full of contradictions .

- The child also absent two main cognitive characteristics namely- Reversibility and conservation. (Ex. For reversibility –for them moving from A to B may not carry the same meaning as moving from B to A) (For conservation the child has inability to conserve in terms of quantity, length and number ….. Experiments……..)

- More over at this stage they are unable to distinguish between living and non-living objects. (Ex. Doll in their hand is a live baby)

- And intellectual structure of the child a this stage is concerned with his egocentric nature.

c)Concrete Operational Stage (7-12 yrs)

This stage shows marked developments in the cognitive functioning of the child-

(1)The child now learns to deal with concepts and ideas that exist only in mental terms.

(2) He begins to think in terms of a set of interrelated principles.

(3) His thinking becomes more logical and systematic – He can now make use of inductive and deductive approaches in terms of reasoning and arriving at conclusions.

(4)The child now develops the ability to conserve both in terms of quantity and number of objects.

(5)The child now is no longer ego-centric in his thinking. He does not find it difficult to appreciate that other people have experiences, views and ideas that differ from his own.

(6) He also develops reversibility. The child now learns to carry out rather complex operations, when concrete objects or experiences are available. (Pure abstract thinking is not possible) That is why this stage is named as the concrete operational stage. Child can learn the four fundamental operations using concrete objects which he is able to group together or classify in terms of number, size, shape, weight etc.

d)Formal Operational Stage (12-20 years)

- During this period, the child develops the ability of thinking and reasoning of the objects and thoughts which are beyond the immediate world.
- Now the problems are more systematically solved and the bases of his action are not trial and error. It means that he not only learns by committing mistakes and by correcting them again and again, but he thinks out the problems and though his reasoning searches its solution.
- He begins look at problems in many ways and explore various solutions but in a very systematic and logical way.

- Moreover, the child's thinking at this stage does not remain only concrete but becomes hypothetical, with considerations given to the most unusual ideas , Hence the creative aspects in the child are very much visible during this age not only in terms of concrete operations but also in terms of abstraction and pure imagination.

- The formal operation stage the child may reach full intellectual potential .

- He may discover the solutions of problems through mental manipulation of symbols by adopting a logical and systematic procure known as scientific thinking and problem solving rather than a reflexive , motor or sensory manipulation.

Educational Implications

1) The need for stage appropriate learning experience.

2) Disequilibrate the learner before stating a new lesson.

3) Promote inquiry among the learner.

4) Help to assimilate, accommodate and thus to equilibrate and adopt.

5) Insist on systematic registration of schemas in the cognitive structure.

6) Cognitive developmental teaching model has been developed based up on Piaget's theory is his contribution to educational technology.

SOCIAL CONSTRUCTIVISM

LEV SEMYONOVICH VYGOTSKY (1896-1934)

- Born in 1896 in Byelorussia
Graduated from Moscow university

- Studied literature and psychology

- Worked at institute of psychology in Moscow.

- He wrote on language and thought, learning and development and educating students with special needs

- Died of Tuberculosis at age 38, in 1934

PRINCIPLES OF SOCIAL CONSTRUCTIVISM

- Child construct their knowledge
- Development can not be separated from it's social context
- Learning can lead to development
- Languages plays a central role in mental development

COMPONENTS

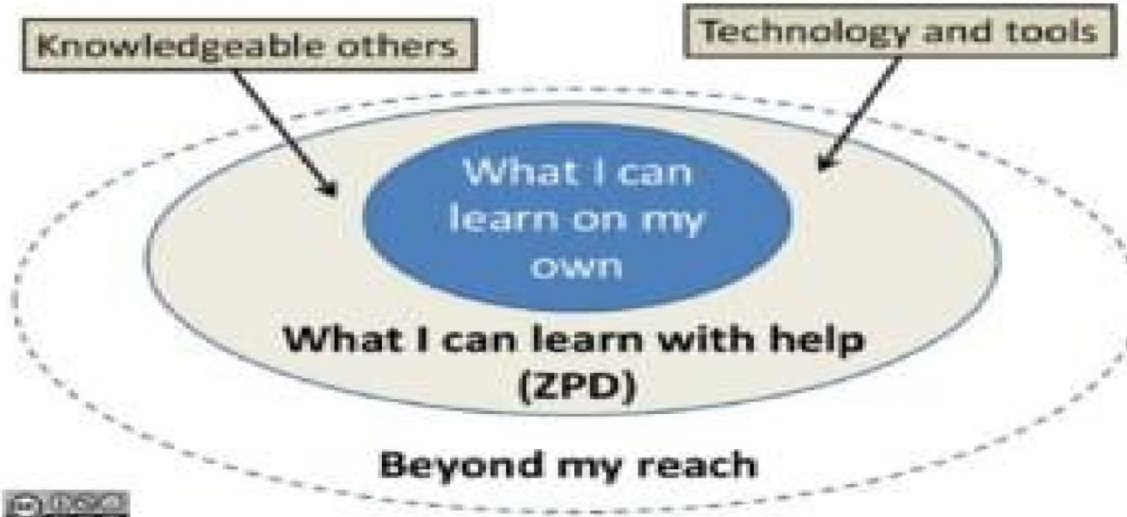
- Construction of knowledge occurs only when the learner interacts
- Learning occurs through the internalization of a
- socially negotiated
- Language is a tool understanding outer world and constructing knowledge
- International learning is limited to the zone of proximal development

ZPD

(Zone of proximal development)

- ZPD is an important concept that relates to the difference between what a child can achieve independently and what a child can achieve with the guidance and Encouragement from a skilled partner

ZPD and scaffolding



MKO
(More Knowledge Other)

- Same one with a higher ability level than the learner
- Doesn't have to be an older adult and some times need not be a person at all MKO can be teachers, parents, friends and siblings
- MKO can provide behavioural verbal instructions- collaborative dialogue this leads to cognitive development

SCAFFOLDING

- Vygotsky defined scaffolding instruction as the "role of teachers and others in supporting the learners development and providing support structures to get to that next stage or level
- Teachers provide scaffolds so that the learners can accomplish certain tasks they would otherwise not able to accomplish on their own
- The goal of the educator is for the student to became an independent learner and problem solver

EDUCATIONAL IMPLICATIONS

- According to Vygotsky's theory, learning takes place as a result of the interaction of the learner in a social context. Hence the curricula should be designed to emphasize interaction between learners and learning task.

- Social constructivism emphasizes the important of culture and context in the construction of knowledge. Hence all the components of the educational process should be framed in tune with the culture of the society.

- Social constructivism considers the teacher as a co-learner. This calls for a change in the conventional role of the teacher from a giver of knowledge to a facilitator, organizer and mentor of learning.

- The physical classroom, based on Vygotsky's theory, would provide clustered desks or tables and work space for peer instruction, collaboration (team-work), and small group instruction.

- Social constructivist method of teaching necessitates the design of learning materials in such a way to encourage student interaction and collaboration.

- Two children can differ substantially in the ZPD's. therefore, a knowledge of the ZPD will help the teacher to identify each child's readiness to benefit from instruction.

BRUNER'S Theory of Cognitive Development

- Jerome S Bruner, a Professor at Harvard University, USA, hypothesized that one's thought processes evolve as a result of maturation, training and experiences through a series of sequential stages.

- The stages of cognitive development enumerated by him for this purpose were Enactive, Iconic and Symbolic representation or stages.

- The stages of development in that Bruner, has not associated these stages with chronological age. (Bruner was fascinated by the writings of Piaget. To a great extent Bruner's ideas were shaped by Piaget's theory of Cognitive Development)

- The first Enactive representation or stage is characterized by the child's representation of things and events in terms of appropriate motor responses and activities.

- At this stage, he is unable to make use of language images or other symbolic representations for carrying out his thought processes and "acts out" and represents them through non-verbal activities based on motor actions and movements.

- The next Iconic representation or stage of cognitive development is characterized by the child's representation of things and events in terms of sensory images or mental pictures.

- The final Symbolic representation or stage of one's cognitive development when thought about things and events is not necessarily dependent upon the motor activities or sensory images and mental pictures.

- During this stage, symbolic representations in the form of words, symbols and other imaginary abstracts phenomena take the place of motor manipulation or concrete visualization.

- In ordinary language we may call these stages as those of action, image and word.

- To begin with the child is at the level of motor actions to followed by constructing images and then to the use of language.

- ✔ According to Bruner “The foundation of any subject can be taught effectively in some intellectually honest form to any body (child) at any stage of development”. (That is, only an effective teacher is capable of Restructuring knowledge and information in a language with in the grasp of a child).

- ✔ Bruner also says that” the duty of the teacher is not to develop walking library, but to help the learner, learn how to learn.” So every learner should learn how to learn. Learning is, learning to learn.

- ✔ According to Bruner two main thinking strategies are adopted. These are selection and reception.

- ✔ In the selection strategy the learner himself makes the classification by forming his own judgments and by testing them. In the reception strategy positive and negative instances are given by an expert, from this they receive the concept.

- ✔ There are two processes adopted by the learner for concept learning. These are scanning and focusing.

- ✔ In scanning what the learner does is forming concept hypotheses on the basis of items observed and then to test these hypotheses by closer study.

- ✔ Scanning are of two types- Simultaneous scanning and Successive scanning. In simultaneous scanning the entire hypothesis are tested in each member of the group and the correct one identified.

- ✔ In successive scanning only one concept hypothesis is taken at a time, this is tested on all the items before the second hypothesis is taken.

- ✔ In focusing strategy the learner focuses his attention on the attributes of the members in the group, in order to identify what group represents.

- ✔ Focusing are also two ways- Focus gambling and Conservative focusing.

- ✔ In focus gambling all the attributes noticed in the first instance are tested at the same time. And in conservative focusing a single attribute is taken and it is tested with each item before the second attribute is taken.

Discovery Learning

- Grasping the ‘Structure’ of a subject understands it in a way that permits many other things to be related to it meaningfully.

- To learn Structure is to learn how things are related. Bruner believes that the Structure of a discipline varies in complexity from stage to stage.

- A resourceful teacher must be capable of reducing the complexity of a discipline to suit the level of understanding of the learner.

- According to Bruner, learning is not passive, but an Active process of Discovery influenced by prior knowledge and ability of the learner.

- These resources are obviously limited in the case of an infant. Teachers should provide problem situations that stimulate students to discover for themselves the structure of the subject matter.

- Structure is made up of the fundamental ideas, relationship or patterns of the subject matter. Specific facts and details are part of the basic structure.

- Bruner recommends Discovery learning where in the teacher plays the role of a facilitator of learning .
- In discovery learning a teacher organizes the class so that the students learn through their own active involvement.
- Students are presented with intriguing questions, baffling situations or interesting problems.

- Instead of explaining how to solve the problem the teacher provides the appropriate material and encourages students to make observations, formulate hypothesis and test solutions .

- This process requires both Intuitive thinking and Analytic thinking. The teacher guides discovery by asking leading questions.

- The teacher also gives feed- back about the direction the problem-solving activities. This feed back must be given at the right time so that students can either revise their approach or continue toward a correct solution.

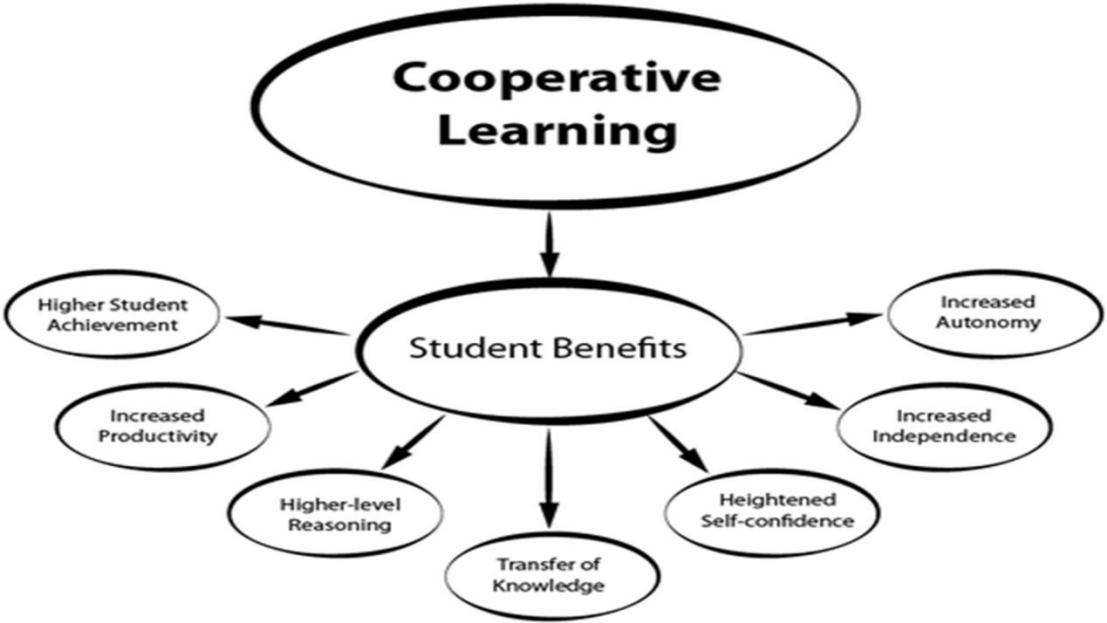
Constructivist methods of instruction and learning are:-

- Collaborative learning
- Cooperative learning
- Peer tutoring
- Discovery learning
- Brainstorming
- Brain based learning
- Concept mapping
- Reciprocal teaching
- Cognitive apprenticeship
- Engaged learning

COOPERATIVE LEARNING

- Cooperative learning is a learning method in which students work together in small groups to achieve a common academic goal.

- According to JOHNSON, cooperative learning is the instructional use of small groups through which students work together to maximise their own and each other's learning.


Cooperative Learning
Student Benefits
Higher Student Achievement
Increased Productivity
Higher-level Reasoning
Transfer of Knowledge
Heightened Self-confidence
Increased Independence
Increased Autonomy

Elements of cooperative learning

The following are the basic elements of cooperative learning:

1.POSITIVE INTERDEPENDENCE:

Members of the group work together and depend on one another so that all group members succeed.

2. INDIVIDUAL AND GROUP ACCOUNTABILITY:

Each member must contribute to the group for the group to succeed and be rewarded.

3. INTERPERSONAL SKILLS:

Trust, communication, decision making, leadership, and conflict resolution are all important to the success of cooperative learning.

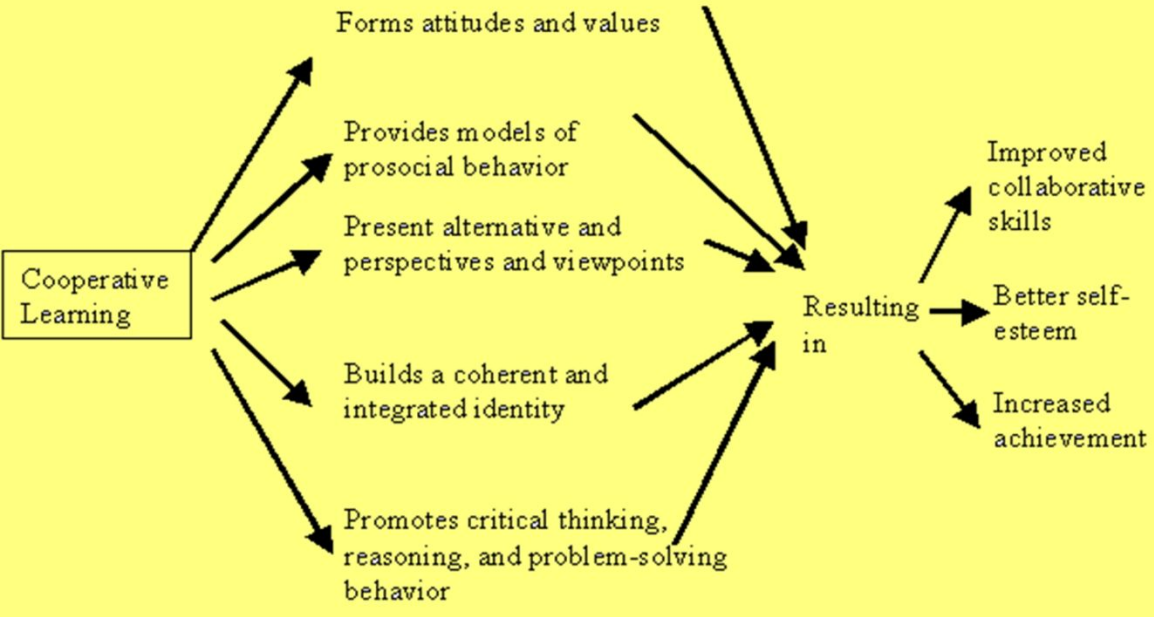
4. FACE-TO-FACE INTERACTION:

Offering effective help and feedback, exchanging resources effectively, challenging one another's reasoning, and motivating one another to achieve
goals are all necessary for effective learning.

5. GROUP PROCESSING:

Reflecting on how well the group is functioning and how to improve is important for successful cooperative learning.

❖Effects of Cooperative Learning



2.COLLABORATIVE LEARNING

- To collaborate means to work together .
- Collaborative learning is a situation in which two or more people learn something together

Characteristics Of Collaborative Learning:-

- Incorporates group work
- It sets group goals and individual accountability
- Learning is active and purposeful students have increase control over learning
- Students are decision- makers and teachers are facilitators

3. PEER TUTORING

- Peer means someone belonging to the same group.
- Peer tutoring is a teaching relationship between two or more students in a group where one of the students act as a tutor for the other.
- Peer tutoring is a system of instruction in which learners help each other and learn by teaching.

4.DISCOVERY LEARNING

- Discovery learning is a constructivist method of learning in which learners work on their own in a learning environment to gain a better understanding.

- This method is suggested by JEROME S. BRUNER

- His major ideas were that learning was an active, social process in which students construct new ideas or concepts based on their current knowledge.

BRAINSTORMING

- Brainstorming is a method for creative problem solving developed by ALEX OSBORN in 1939.
- It is an idea generating technique.
- It works by focusing on a problem, and then deliberately coming up with as many solutions as possible and by pushing the ideas as far as possible.

- As a constructivist method of learning brainstorming involves generating ideas and sharing knowledge, in which learners are encouraged to think individually and collectively without interruption.

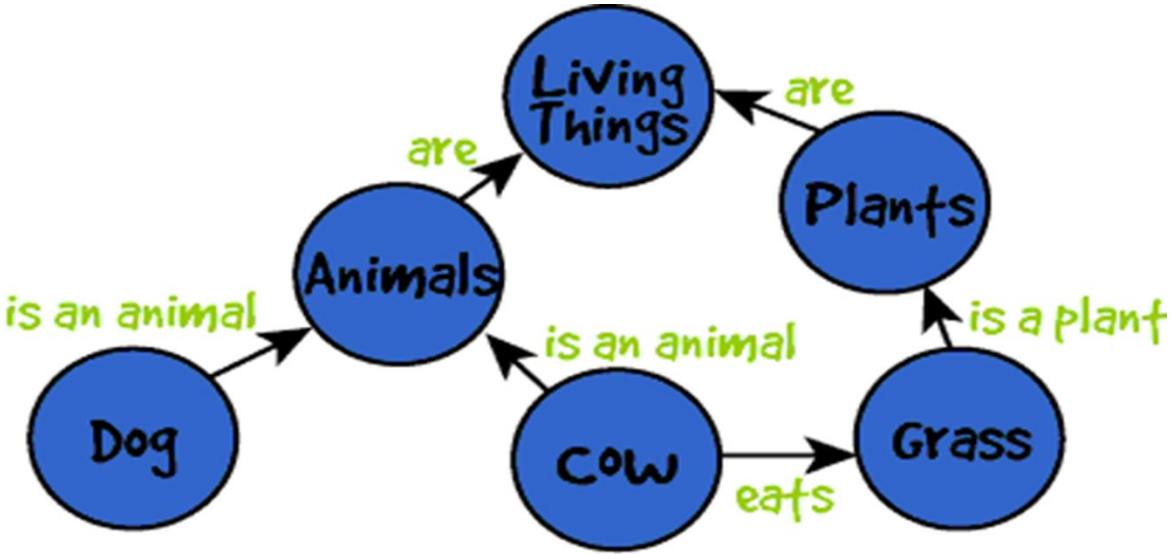
- According to OSBORN , brainstorming is a method by which a group tries to find a solution for a specific problem by amassing a list of ideas spontaneously contributed its members.

6. BRAIN- BASED LEARNING

- ✔ Brain- based learning is an approach to learning that says that the brain is able to learn naturally.

- ✔ People learn in environments where they are able to think critically and are challenged.

7 CONCEPT MAPPING



- Concept maps(knowledge maps or mind maps) are graphical tools for organizing and representing knowledge.
- As a constructivist method of learning, concept mapping is the individualized technique of summarizing the relationship among different ideas in graphs while engaged in learning activity.
- Developed by NOVAK, in 1972.
- A concept map is a diagram showing the relationships in between concepts.

8-RECIPROCAL TEACHING

- Reciprocal teaching (RT) is a constructivist model of learning designed to develop in the learner the ability to comprehend a reading passage.

- It is characterised as a dialogue taking place between the teacher and students that result in learning how to construct meaning when they are placed in a reading situation.

9-COGNITIVE APPRENTICESHIP

- Apprenticeship is a process through which a more experienced person assists a less experienced one by way of demonstration, support, and examples.

- Cognitive apprenticeship is a teaching- learning relationship in which a less experienced learner acquires knowledge and skills under the guidance of an expert.

10-ENGAGED LEARNING

- Engaged learning (EL) is a constructivist strategy for effective and deep learning.

- In EL, students learn by actively participating in real life activities through team work, exploration and discovery with peers.

- It is based on the principle that students learn more, and more deeply, when they are actively involved in their learning and when they have opportunities to apply and assess what they are learning in different settings.

A list of activities that can be used in a constructivist classroom

projects	experiments	Observation
Group discussion	seminar	Chart exhibition
debate	Bulletin board	Nature observation
fieldtrip	Outdoor learning	Study tour
Library reference	Role play	Cartoon making

HUMANISTIC APPROACH

- The humanistic approach emphasizes the personal worth of the individual, the centrality of human values, and the creative, active nature of human beings.

- The approach is optimistic and focuses on the noble human capacity to overcome hardship, pain and despair.

Humanistic Psychology

- Humanistic psychology(also known as the “third force”) started in the 1950s.
- This perspective grew largely out of frustration with both behaviourism and psychoanalysis
- The focus of psychology should not be on observable behaviour and how it can be manipulated(behaviourism)

- Nor should it be on unconscious motivation and how to understand it(psychoanalysis).

EXPERIENTIAL LEARNING STYLE THEORY

- Experiential learning is a method of educating through first-hand experience.

- Skills, knowledge, and experience are acquired outside of the traditional academic classroom setting, and may include internships, studies abroad, field trips, field research, and service-learning projects.

- The concept of experiential learning was first explored by John Dewey and Jean Piaget, among others.

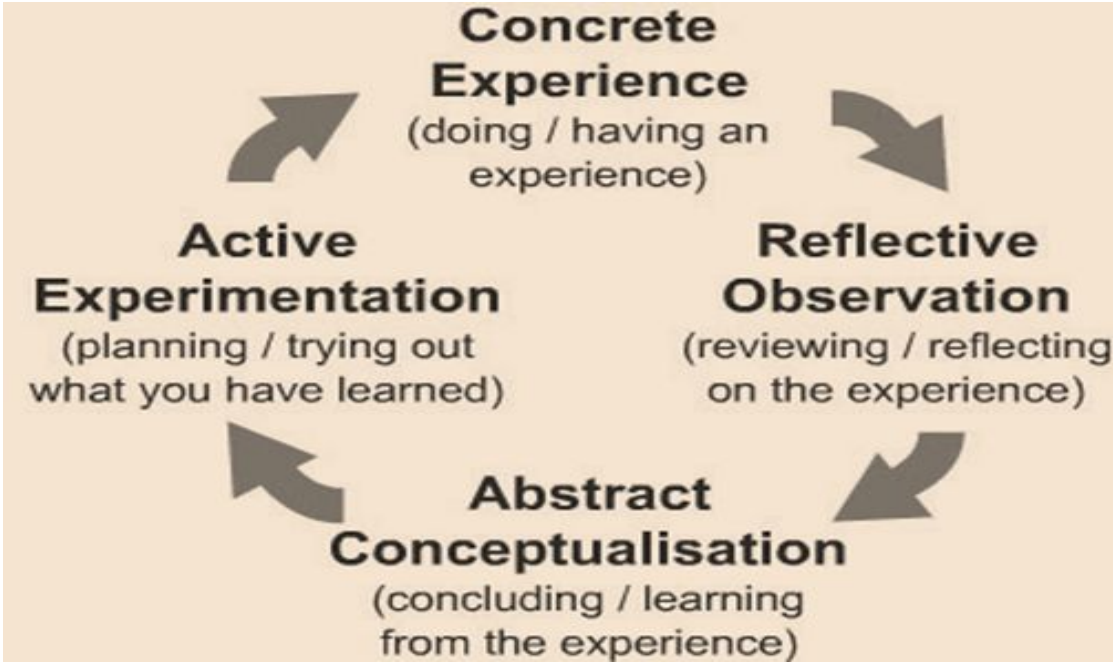
- It was made popular by education theorist David A. Kolb, who, along with Ron Fry, developed the experiential learning theory, which is based on the idea that learning is a process whereby knowledge is created through transformation of experience.

- It is based on four main elements which operate in a continuous cycle during the learning experience:

- Concrete experience
- Reflective observation
- Abstract conceptualization
- Active experimentation

The Experiential Learning Cycle

Kolb's experiential learning style theory is typically represented by a four stage learning cycle in which the learner 'touches all the bases.


Concrete Experience
(doing / having an experience)
Reflective Observation
(reviewing / reflecting on the experience)
Abstract Conceptualisation
(concluding / learning from the experience)
Active Experimentation
(planning / trying out what you have learned)

1.Concrete Experience - (a new experience of situation is encountered, or a reinterpretation of existing experience).

2. **Reflective Observation** (of the new experience. Of particular importance are any inconsistencies between experience and understanding).

3. **Abstract Conceptualization** (Reflection gives rise to a new idea, or a modification of an existing abstract concept).

4. Active Experimentation (the learner applies them to the world around them to see what results).

Effective learning is seen when a person progresses through a cycle of four stages: of

(1) having a concrete experience followed by

(2) observation of and reflection on that experience which leads to

(3) the formation of abstract concepts (analysis) and generalizations (conclusions) which are then

(4) used to test hypothesis in future situations, resulting in new experiences.

(Kolb (1974) views learning as an integrated process with each stage being mutually supportive of and feeding into the next. It is possible to enter the cycle at any stage and follow it through its logical sequence.

Criteria for Experiential-Learning

The components of experiential-learning vary to some degree, but generally follow the following criteria:

•Should be personally meaningful and have some significance to the student
•Students should have opportunities to reflect on and discuss their learning experience throughout the process of the assignment
•The experience should involve the student's whole person, including the senses, personality, and emotions
•Previous knowledge on the subject matter should be acknowledged

Why Is This Important?

Learning that is considered "experiential" contains all the following elements: reflection, critical analysis and synthesis, opportunities for students to take initiative, make decisions and be accountable for the results. It provides opportunities for students to engage intellectually, creatively, emotionally, socially, or physically.
When students are engaged in learning experiences that they see the relevance of, and the product has more significance than a grade, they have increased motivation to learn and produce a more thoughtful product.

.

•Experiential learning stimulates academic inquiry to enrich and apply the content students are learning.

•Encountering authentic opportunities for applying their learning motivates students

Merits

- It produces autonomous learners
- Reflection deepens learning and helps students more
- Internship and work experience become more meaningful if students are more engaged

- Get real world experience and transfer of learning also possible’
- Students have the chance to access more life related experience in a direct way

HUMANIST STRATEGIES IN CLASSROOM

- The humanistic classroom provides a holistic approach to learning by keeping the focus on the child. The student is respected as an individual and is responsible for making decisions about his learning.

- Humanistic lessons are not rigidly prescribed, but flow according to the needs and inquiries of the student. This open approach helps provide emotional support for the student in a humanistic classroom.

Student- Centered Learning

- Student- Centered learning takes place when the teacher becomes a facilitator, taking the focus from herself as the bearer of knowledge.
- The student takes on an important role in this type of classroom.
- Lessons originate and develop from the interests of the student.
- The child is able to showcase his creativity in this type of open classroom, which increases self-esteem and a willingness to learn.

Emotional Support

- A humanistic classroom is inclusive of everyone. This type of class seeks to support both individuality and diversity by finding the similarities among children.

- Lessons are developed not for the group, but for the individual. Diversified lessons give each child a chance to succeed and receive positive reinforcement.

- Each child knows how it feels to succeed, and stratification of students is eliminated. Each child learns at an individual pace without labels and stereotypes that can stigmatize.

Open Seminars

- Open seminars provide a chance for the student's voice to be heard. Situating desks in a circle, with the teacher joining the circle, gives everyone an equal voice.

- There should be rules for the open seminar, such as respect of opinions and giving each person a chance to speak without interruption.

- The seminar may focus on a question from a student, a piece of literature, a current event or anything the class is studying.

Cooperative Learning

- Cooperative learning lets children work together to find solutions to problems. Each child may have a specific role within the group to make use of his talents.

- The teacher supervises each group of about three or four students to answer questions and provide support. This type of learning allows the student to learn how to foster peer relationships, an important skill to carry throughout life.

Discovery Education

- In discovery education, the teacher introduces a concept and gives the student freedom to discover her own path to learning more about the concept. This strategy supports the concept of multiple intelligences and intellectual diversity.

- Abstract learners may seek books and computers to research the concept. The interpersonal personality may seek out others to question for information on the topic.

- Best practices from humanistic theory to bring to your classroom.
- Making time to collaborate with other educators.
- Co-planning lessons with other teachers.
- Evaluating student needs and wants regularly.
- Connecting with parents to help meet specific student needs.
- Preparing to try new things with students regularly.

Module 5

Neuroscience of Learning, Memory, Forgetting

- Fasna V.N.

The brain has three main parts: the cerebrum, cerebellum and brainstem.

- **Cerebrum:** is the largest part of the brain and is composed of right and left hemispheres. It performs higher functions like interpreting touch, vision and hearing, as well as speech, reasoning, emotions, learning, and fine control of movement.

- **Cerebellum:** is located under the cerebrum. Its function is to coordinate muscle movements, maintain posture, and balance.

- **Brainstem:** acts as a relay centre connecting the cerebrum and cerebellum to the spinal cord. It performs many automatic functions such as breathing, heart rate, body temperature, wake and sleep cycles, digestion, sneezing, coughing, vomiting, and swallowing.

Right brain – left brain

- The cerebrum is divided into two halves: the right and left hemispheres .They are joined by a bundle of fibers called the corpus callosum that transmits messages from one side to the other.
- Each hemisphere controls the opposite side of the body. If a stroke occurs on the right side of the brain, your left arm or leg may be weak or paralyzed.

- Not all functions of the hemispheres are shared. In general, the left hemisphere controls speech, comprehension, arithmetic, and writing.

- The right hemisphere controls creativity, spatial ability, artistic, and musical skills. The left hemisphere is dominant in hand use and language in about 92% of people.

Neurophysiological Theory of Learning (Hebb).

- Hebbian theory is a neuroscientific theory claiming that an increase in synaptic efficacy arises from a presynaptic cell's repeated and persistent stimulation of a postsynaptic cell.

- It is an attempt to explain synaptic plasticity, the adaptation of brain neurons during the learning process. It was introduced by Donald Hebb in his 1949 book The Organization of Behaviour.

- The theory is also called Hebb's rule, Hebb's postulate, and cell assembly theory.

Hebb states it as follows:

- Let us assume that the persistence or repetition of a reverberatory activity (or "trace") tends to induce lasting cellular changes that add to its stability.

- The theory attempts to explain associative or Hebbian learning, in which simultaneous activation of cells leads to pronounced increases in synaptic strength between those cells. It also provides a biological basis for errorless learning methods for education and memory rehabilitation.

- In the study of neural networks in cognitive function, it is often regarded as the neuronal basis of unsupervised learning.

MEMORY

- The process of retaining and reproducing what has been learnt is known as remembering.

- The power of mind to retain and reproduce experience is called memory

- Memory is the power of a person to store experiences and to bring them into the field of consciousness sometimes after the experiences have occurred”-Ryburn

- “Memory consists in remembering what has been previously learned”-Wood Worth & Marquis

- “Memory is the ideal revival so far as ideal revival is merely reproductive.

- This productive aspect of ideal revival requires the object of past experiences to be reinstated as far as possible in the order and manner of their original occurrence”-Stout

- According to Wood worth remembering involves Learning, Recall, Retention, Recognition

Types Of Memory

- **Immediate memory**
  Learn and remember a thing for short time and then forget it.
- **Permanent memory**
  Here retention is permanent in nature
- **Rote memory**
  Things are learned without understanding
- **Logical memory**
  Materials are learned with insight, understanding and logical thinking.

Short Term Memory

- Stores information temporarily.
- A phone number person's name or what you're going to buy from the market are stored in STM just as long as it takes you to use it.

Long Term Memory

- It's a memory systems for the retention of large amount of information over long period of time. LTM is much more stable than STM
- Long term memory is divided into explicit and implicit memories.

Explicit Memory

- Explicit memory are a type of long term memory which you remember after consciously thinking about it.
- Name of child hood friend, friends phone number
- There are two types of explicit memory

Episodic Memory

- Episodic memory are a type of explicit memory that relate to our own personal lives.
- We construct episodic memory over time and they change and adapt to the new context

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Semantic Memory

- Semantic memory accounts for our general knowledge of the world
- Unlike episodic memory we are able to maintain the strength and accuracy of our semantic memory over time
- Example :the fact that the sky is blue.

▪ Implicit Memory

- Implicit memory is the second major type of LTM.
- It comprises memories that you don't have to consciously recall
- For example speaking a language, riding bike…

INFORMATION PROCESSING MODEL OF MEMORY

According to information processing model theory human memorisation process involves

- ❑ Encoding
- ❑ Storage
- ❑ Retrieval

Atkinson – Shiffrin Model of Information Processing

In 1968 Atkinson and shiffrin proposed a model of human memory which speculate 3 distinct memory stores

- **Sensory Memory**
- **Short Term Memory**
- **Long Term Memory**

Sensory memory stores information that has just been perceived .This information has not attended or has not yet reached the consciousness of the person. These images lasts only mille seconds. It decays rapidly and is forgotten

Short Term Memory

- It stores information temporarily and then either dismisses it or transfer it to long term memory.
- It also known as working memory. In Freudian term this is conscious memory.
- Information in short term memory can be rehearsed so that it enters long term memory

Long Term Memory

- It is a memory system for the retention of large amount of Information for a long period of time.
- LTM is much more stable than STM. It is influenced by understanding what has been perceived.

Enhancing Memory

There are several techniques for improving memory. Some of them are given below

- Over learning
- Spaced & un spaced practice
- Repetition & recitation
- Whole learning & part learning
- Rote & intelligent methods
- Grouping & rhythm methods

Mnemonics

Mnemonics is techniques of assisting the memory by using a system of artificial aids such as rhymes, sentences etc. to help in the recall of names dates, facts.

❖ Kinds of Mnemonic Technique **:**

- **Acronym**

  UNESCO (united nations educational scientific and cultural organisation)

- **Acrostic**

  Marys Violet Eye Made John Stay Up Night Pondering

- **Chunking**

9846100100
98 46 100 100
Word length mnemonic
How I wish I could construct my future house for jezza
3.1415926535

IMPLICATIONS OF NEUROBIOLOGY FOR TEACHING AND LEARNING

Advantages of Studying Neurological Research

1.Validating Strategies

- When working with teachers I have found they all have their favourites teaching strategies and methods – the ones that work and provide the best results.

- When we look at various research in neuroscience, it affirms their beliefs about what makes for good educational practice.

- Now we have the research that supports what effective teachers have known all along.

- By studying research, teachers will also be able to distinguish those practices that are least effective.

2.Better Understanding of Students with Learning Disabilities and Learning Problems

- Neuroscience research makes it easier to identify students with learning disabilities and to provide interventions that can significantly help students with their academic performance.

- Understanding that Asperger's syndrome, for example, as a neurological disorder helps teachers comprehend why the student acts the way he/she does, and what teaching strategies still work best.

- New biomarkers and diagnostic strategies for disabilities for ADHD and dyslexia have been identified, leading to more successful early intervention actions (tech thought).

- Understanding that every brain is unique and processes information differently, helps teachers maintain a perspective while working with a variety of learners who are having difficulty in their learning process.

- Educators also tend to be more supportive when their students' behaviour is not necessarily entirely under their voluntary control. That helps understand students allowing them to have more patience and understanding.

- By being aware of the slow development of the prefrontal cortex, for example, enables educators to be more persevering with students (Hook, 2012).

- Identifying executive functioning difficulties enables even experienced teachers to have tolerance – especially those working with the adolescent brain!

3. Learn How to Use Technology More Effectively

- The use of technology and computers are changing our brains – good or bad – it's happening and computers are here to stay. So educators need to get a handle on this beast.

- We've gone from main frame computers, to personal computers, to the internet to smartphones.

- Most children are computer-literate and many are more advanced than their teachers.

- Computers and the use of technology are changing formal education and not only do teachers need to keep their own personal skills sharp, they need to learn to use technology to their advantage when working with students.

- Computers, i Pads, video games, smartphones, as well as the media and advertising, are rewiring our brains. (Lin, 2008).

4. Use Research to Improve Teaching and Learning

- Effective teachers are always trying to enhance their skills, thus improving student achievement.

- Teachers need to understand what the most effective teaching strategies and methods are Best Practices, as well as how to implement them.

- But they also need understand why they are the most effective. That's where the study of neuroscience comes in.

5. Being Able to Translate Research into Classroom Practice

- John Bruer's book, The Myth of the First Three Years: A New Understanding of Early Brain Development and Lifelong Learning (1999, Free Press) argues that because educators' have a lack of understanding brain research, there has been "misapplications of cognitive neuroscience discoveries" (Sylwester, 2001).

- To maintain our credibility with the scientific world, teachers must distinguish trendy “research-based” claims about the brain from those grounded in legitimate neuroscientific findings. And then we need to figure out how to translate that information into classroom practice.

Module 6

Transfer of Learning

- Fasna V.N.

- Relevance of Transfer of Learning in Education, Types of Transfer, Theories of Transfer, Experimentally Supported Generalizations About Transfer.

- Transfer of learning is a process in which something learned in one situation is used in another situation.

- Transfer of learning is one of the most important ideas in teaching and learning.

- Every student can benefit by learning in a manner that supports integrating their new knowledge and skills into their current knowledge and skills.

- The word transfer is used to describe the Effects of past learning upon present acquisition

- In Simple way transfer may be defined as “the partial or total application or carryover of knowledge, skills, habits, attitudes from one situation to another situation.

TYPES OF TRANSFER OF LEARNING

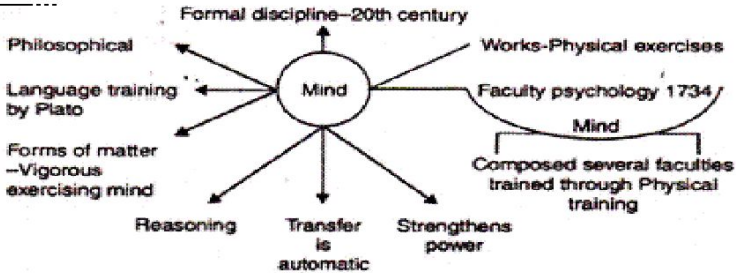
- **1**. **Positive transfer** - When learning of one activity makes learning of another activity easier.
- **2. Negative transfer** - When the learning of one task makes the learning of another task harder.

- **3. Zero transfer** - When learning of a task neither facilitates nor interference with the learning of a subsequent task

Important Theories of Transfer of Learning

Theory 1. **Mental Discipline:**

- This theory came to existence in 20th century.
- It is philosophical in nature. Mind is the central position which is composed of several facilities.
- These faculties are to be trained through muscular and physical training.
- This facility psychology developed during 1734.The diagram below explicates the theory of mental discipline:



From the above diagram it is known that bright students learn better than that of slow learners because memorization is faster in length students where as slow in slow learner.

Transfer of Learning: Theory # 2.

Identical Elements:

E.L. Thorndike has developed this theory. It goes from on learning situation to other situation. Two identical factors or activities or common factor transfer to total situation where maximum transfer of learning or total learning can be taken place.
It goes from matter to mind.

Identities of substances:

Identities of procedure → Total result
Matter → Mind
Exp — Piano → Typing/Computer
Sanskrit → Hindi
Latin → English
Car Driving Bus Driving

Transfer of Learning: Theory # 3.
Generalization:

- This theory is developed by C. Judd. In this theory transfer of learning takes place primarily through generalization and degree of transfer depends upon the extent to which experiences in the first situation are understood and consolidated into generalization.

- Better transfer can be possible when one can understand the principle. It is just an extension of the theory of identical elements.

- General principle Specific solution Laws of refraction More significant One situation —> transfer other superior situation. It is a fact that when practice of anything is made without training, then result comes within automatically.

Transfer of Learning: Theory # 4.
Transposition:

- It is advocated by Gestalt psychology. Transfer starts in understanding the fact and perception of similarity by the learner. It is known as pattern of relationship.

- It is not the specific skills or facts or even underlying principles which are important, but the understanding of relationship between facts, process and the principles are the real basis of transfer.

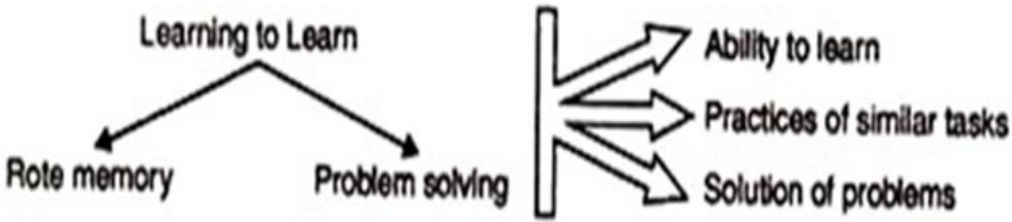
Transfer of Learning: Theory # 5.
Ideals:

- It was propounded by W.C. Bagley. When ideas are stressed are perused then transfer of learning can be taken place. Ideas like honesty, truthfulness, love etc. can be transferred in this theory.

Transfer of Learning: Theory # 6.
Learning to Learn:

- After practicing a series of related or similar tasks then learner learns the capacity to learn the same thing. It is found that whenever learner comes in contact with various learning materials then he learns efficiently and effectively.

- Learning to learn means when learning starts from one method then it goes to another method.


Learning to Learn
Rote memory
Problem solving
Ability to learn
Practices of similar tasks
Solution of problems

Module 7

Life Skill Education, Mental Health and Adjustment

-Fasal Mammadunni B

Life skill Education

- ✔ Life skills have been defined by the World Health Organization (WHO) as "abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life".

- ✔ The term ‘Life Skills’ refers to the skills you need to make the most out of life.

- ✔ Life skills are usually associated with managing and living a better quality of life.

Life Skills

- Life skills help us to accomplish our ambitions and live with our full potential.

- There is no definite list of life skills.

- Certain skills may be more or less relevant to you depending on your life circumstances, your culture, beliefs, age, geographic location, etc.

WHO

The core skills which are together known as “life skills” that promote the psycho-social competence among individuals. They are-

- Critical thinking,
- Creative thinking,
- Decision making,
- Problem solving,
- Effective communication,
- Interpersonal relationship,
- Self-awareness,
- Empathy,
- Coping with emotions and
- Coping with stress.

-WORLD HEALTH ORGANISATION(1997)

Critical Thinking

- Critical thinking is self-guided, self-disciplined thinking which attempts to reason at the highest level of quality in a fair-minded way.

- Critical thinking is that mode of thinking — about any subject, content, or problem — in which the thinker improves the quality of his or her thinking by skilfully analysing, assessing, and reconstructing it.

- Critical thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking.

Creative Thinking

- Creative thinking means thinking about new things or thinking in new ways.

- It is “thinking outside the box”.
- Often, creativity in this sense involves what is called lateral thinking, or the ability to perceive patterns that are not obvious.

- Lateral thinking is the solving of problems by an indirect and creative approach, typically through viewing the problem in a new and unusual light.

Coping With Emotions

- Letting rationality take control of the situation as far as possible
- Keeping calm in words and actions
- Accepting reality
- Thinking through the possible out comes of a situation and taking positive alternative lines of action in good time
- Carrying on with essential duties even if there is an upsetting event
- Seeking or accepting suitable advice or assistance
- Recovering quickly from a sad event.

Managing Emotions

- Identify the problematic emotion
- Analyse underlying cause of emotion
- Reflect on the effect on self and others
- Weigh capacity to handle emotions
- Seeking guidance/ counselling
- Delaying action
- Self distraction
- Walking away
- Expressing emotion through writing,

Coping With Stress

- People feel stressed when they feel like the demands or pressures on them are more than what they can cope with.
- Everyone feels stressed at times.
- You may feel under pressure, worried, tense, upset, sad, and angry – or maybe a mixture of uncomfortable feelings.
- makes things worse in the long run.

- These feelings can be entirely normal, but sometimes stress can get too much and can even trigger a mental illness.

- Sometimes people try to block out stress by using drugs or alcohol. This

Causes

- Increased school work
- Preparing for exams
- Being teased or bullied at school
- Arguing with parents, brothers or sisters, or friends.

* Effects on your body:
  - feeling tired
  -having difficulty sleeping
  -going off your food
  -stomach aches
  -headaches
  -aches and pains in your neck and shoulders.

.

* Effects on your feelings:
    -feeling sad
    -being irritable, losing your temper easily
    -finding it hard to keep your mind on school work

Measures

- Don’t suffer in silence!
  - Feeling alone makes stress harder to deal with.
- Talking to somebody you trust
  - can really help you to deal with stress and to work out how to tackle the problems that are causing it.

- Make a list of all the things in your life that are making you feel stressed– - write them down on a piece of paper. Then take each one in turn and list all the things you could do to tackle it. This can help you sort things out in your head.

Problems look easier to deal with one at a time than in a big jumble in your head!

- Take a break - do something that you really enjoy.
- Do something relaxing, for example take a hot bath or watch a film.
- Do some exercise.

-This produces chemicals in your body called endorphins ,which make you feel good!

Life Skills Education

- Life Skills Education is the study of abilities
  -for adaptive and positive behaviour that
  -enable individuals to deal effectively with the demands and
  -the challenges of everyday life.

Need And Significance

- Life skills help adolescents to transit successfully from childhood to adulthood
  -by healthy development of social and emotional skills.
- It helps in the development of social competence and problem solving skills,
  -which in turn help adolescents to form their own identity.
- It helps to weigh pros and cons of the situation,
  -hence, act as a mediator to problem behaviour.

- Life skills enable individuals to translate knowledge, attitudes and values into actual abilities –
  -i.e. "What to do and how to do it".

- Life skills are abilities that enable individuals to behave in healthy ways, gives the desire to do so and gives the scope and opportunity to-do so.

- It promotes positive social norms
  -that make an impact the adolescent health services, schools and family.

- It helps adolescents to differentiate between hearing and listening
  -and thus, ensuring less development misconceptions or miscommunications regarding issues such as drugs, alcoholism etc.

- It delays the onset of the abuse of tobacco, alcohol etc.

- It promotes the development of positive self-esteem and teaches anger control.

❖ The development of life skills helps students to -

✔ Find new ways of thinking and problem solving

✔ Recognise the impact of their actions and teaches them to take responsibility for what they do rather than blame others

✔ Build confidence both in spoken skills and for group collaboration and cooperation

✔ Analyse options, make decisions and understand why they make certain choices outside the classroom.

✔ Develop a greater sense of self-awareness and appreciation for others

Mental Health

- "Mental health is the full and harmonious functioning of the wholesome personality"
  J.A Hadfield (1953)

- "It is the ability which help to seek adjustment in the difficult situations of our life"
  Cutts and Maslay (1941)

WHO Defines

- Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

Characteristics Of Mentally Healthy Person

- ✔ Knows his strength and weaknesses
- ✔ Sense of happiness and well-being
- ✔ Capable to deal with stresses of life
- ✔ The feeling of self realization
- ✔ Ability to strike balance in different aspects of life
- ✔ Intellectual development
- ✔ Shows concerns for other
- ✔ Social adjustability
- ✔ He lives in the world of reality

Symptoms of poor mental health

- Emotionally unstable and upset
- Suspicious and insecure
- Feeling of guilt
- Less self confidence
- Frustration, conflicts, strain and stress
- Less tolerance and short tempered
- Lack of decision making capacity
- Unrealistic attitudes towards life
- Suffers mental disturbances
- Always dissatisfied
- Live in his own world of imagination and fantasy

Importance Of Mental Health Of Teachers And Students

- Help in seeking goals of life
- Help to lead a life with satisfaction
- Help in preventing mental illness
- Help in actualizing one's potentialities
- Help in proper emotional development
- Help in developing desirable personalities

Classification Of Mental Disorders

- Diagnostic and Statistical Manual of Mental Disorders –
  DSM developed by American Psychiatric Association

- Most widely accepted diagnostic system.

- It enables the professionals to speak the same language when diagnosing, treating, researching and conversing about a variety of mental disorders.

- In 1952 APA published a manual providing a diagnostic system for describing and classifying mental disorders.

- Manual has been revised several times

- Recent edition is DSM V in 2015

- It contains descriptions about mental disorders and lists criteria that must be met in order to make a particular diagnosis.

DSM V classifications

- Neuro-developmental Disorders
- Schizophrenia Spectrum and Other Psychotic Disorders
- Bipolar and Related Disorders
- Depressive Disorders
- Anxiety Disorders
- Obsessive – Compulsive and Related Disorders
- Trauma and Stressor Related Disorders
- Dissociative Disorders
- Somatic Symptom and Related Disorders

- Feeding and Eating Disorders
- Elimination Disorders
- Sleep Wake Disorders
- Sexual Dysfunctions
- Gender Dysphoria
- Disruptive, Impulse- Control and Conduct Disorders
- Substance Use and Addictive Disorders
- Neuro-Cognitive Disorders
- Personality Disorders
- Paraphilic Disorders
- Other Mental Disorders

Causes of Mental Ill health of Teachers and Students

- Stress and strain
- Lack of social skills
- Lack of support from parents and teachers
- Lack of healthy diet
- Lack of health exercises

Role Of The Teacher To Improve Mental Health

- Give students a stress free learning environment
- Ensure emotional security
- Treat them psychologically
- Encourage Prayer
- Meditation
- Aware them about Healthy fats
- Give opportunity to Indulge in mind games
- Give chance to Spend more time with nature
- Give options for Exercise students body well
- Focus student on learning new things

Mental Hygiene

- "Mental hygiene is a science which deals with human welfare that pervades all fields of human relationship"

  --- Crow and Crow (1951)

- "Mental hygiene may be defined as the prevention of mental illness, preservation of mental health and the cure of mental illness"

  --- Crow and Crow (1969)

ADJUSTMENT AND MALADJUSTMENT

- "Adjustment is the process by which living organisms maintains a balance between its need and circumstances that influence the satisfaction of his life"

  - L.S. Shaffer

- Adjustment problems leads to maladjustment.

Maladjustment

- Maladjustment is the degree of disharmony between individual and environment
- Inability to react successfully and satisfactorily to the demands of one's environment.
- A failure to meet the demands of society, such as Coping with problems and social relationships: usually reflected in emotional instability poor, faulty, or inadequate adjustment;-especially :failure to reach a satisfactory adjustment between one's desires and the conditions of one's life

Causes Of Maladjustment

- Physical causes
  - Defects
  - Diseases
- Psychological causes
  - Psychosis
  - Neurosis
  - Emotional problems

- Environmental causes
  - School / teacher
  - Home / parents
- Social causes
  - Lack of soft skills
  - Lack of socialisation
  - Bad friendship

Adjustment Mechanisms

If it occurs the person tries to adjust the environment by using three mechanisms

1. Modifying the internal impulses
2. Try to alter the environmental demands to resolve the maladjustment
3. Escape through unconscious resources of the mental mechanisms (Defence Mechanisms)

DEFENCE MECHANISM

- “Defence mechanisms are certain pattern of behaviour that are employed for protection against threat of anxiety”
- --Arkoff
- It is the temporary solution to protect from a psychological problem

Defence Mechanisms

1. Repression
2. Projection
3. Displacement
4. Rationalization
6. Denial
7. Regression
8. Sublimation

Repression

- Primary ego defence
- It is the process of excluding distressing thoughts and feelings from consciousness
- "motivated forgetting," is just that: not being able to recall a threatening situation, person, or event
- Repression acts to keep information out of conscious awareness.
- These memories don't just disappear; they continue to influence our behaviour.
- Repressed thoughts and impulses remain active in the unconscious and require continuous expenditure of psychic energy to prevent their emergence into conscious awareness

Projection

- It involves the process by which the person attributes unacceptable internal thoughts, feelings and behaviours to other people or to the environment
- Example: failing of the student attributed to an unfair test, cheating of others or a professor

Displacement

- It is the redirection of an impulse onto a substitute target
- Example :scolded by her parents and proceeds to hit her little sister, kick her dog.

Rationalization

- Refers to fallacious reasoning (based on a false idea)
- Misrepresents irrational behaviour
- Silly mistakes, poor judgments and failures can be
- explained by people is the cognitive distortion of "the facts" to make an event or an impulse less threatening
- Sour grapism
- Sweet lemonism

Reaction Formation

Sometimes the ego can guard against a forbidden impulse by expressing its opposite in both thought and behaviour

"believing the opposite," is changing an unacceptable impulse into its opposite

- Two step process
  - * The unacceptable impulse is repressed
  - * The exact opposite is expressed on a conscious level
  - *Eg: a women threatened by her own conscious sexual desires may become a staunch crusader to ban pornographic movies in her community

Regression

- Reverting to immature and child like patterns of behaviour
- Sublimation
- It is an ego defence that enables the person adaptively to direct impulses so that he may be expressed via socially approved thoughts or actions

Denial

- Someone refuses to acknowledge that an unpleasant event has occurred
- involves blocking external events from awareness
- dangerous defence -- no one disregards reality and gets away with it for long
- It can operate by itself or, more commonly, in combination with other, more subtle mechanisms that support it

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