Human Development and Learning (EDU 302)

Table of Contents

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Lecture: 01
(Topics: 1-8)

Topic: 01. Introduction of Growth and development

Development is a process that entails the entire life-span of an individual, from conception to death. Some of us are intrigued to understand how development does evolve over the years, what are the changes that occur and how do they occur during the life-span? A study of all changes throughout the life-span of an individual is referred to as developmental psychology, developmental science or human development (Keenan & Evans, 2009). However, when we focus our attention to understand the growth, changes and consistencies, on a rather narrower portion of life-span, from conception through adolescence, we are referring to the study of child development.

The field of child development is multidisciplinary, which draws its knowledge from several other fields such as psychology, sociology, anthropology, biology, and neuroscience to name a few (Berk, 2013). Likewise, it informs the practices of various experts who are keen to improve the lives of children. These include educators, pediatricians, psychologists, child care service providers, social service professionals, and parents. In this way, the field of child development has both scientific as well as practical relevance and utility.

While the study of child development is important in its own right, it also informs us about the nature of human development. A better understanding of the growth, changes and stability in the earlier behaviors of life has the potential to inform later behavior, also referred to as adult behavior. As we focus on the growth and development of children in this unit, we draw upon the life-span developmental psychology to inform our understanding.

Overview of Growth and Development

This section provides an overview of two interrelated yet discrete concepts: growth and development. Child's growth and development are complex processes which are influenced by multiple factors and sources. The terms growth and development are often used interchangeably or paired up in a rather similar way, which causes ambiguity over their meaning. It is, therefore, important to understand the difference between these two terms right at the outset.

Topic: 02.Difference between Growth and Development Growth

The term growth implies an addition or increase in the bodily aspects that can be measured, for example, height, weight, size, muscles and length (Woolfolk, 2014). It is based on biological processes that naturally occur over a period of time and are relatively not or less influenced by context except for extreme illness or undernourishment. It eventually stops when the body parts reach the peak of their growth. Overall, growth refers to the natural, spontaneous, specific, genetically programmed, and measurable quantitative gains in a human body. Most of the child's physical gains fall within this category. Some of the developmental psychologists also refer to these changes as maturation.

Development

While growth refers to the physical changes that an individual undergoes, development refers to certain changes that occur within lifespan life-span of an individual, that is, from conception till death (Keenan & Evans, 2009). It not only involves growth but also entails disintegration and eventually decays (death). However, not all changes are considered as development. Rather, it applies to those changes that appear in orderly ways and are considered permanent. Most of these changes are qualitative in nature and influenced by context, for example, changes in behavioral, social, moral and intellectual aspects of an individual. Overall, these changes result in better, adaptive, organized and complex human behaviors.

Development has been described in different ways to highlight different aspects. These include domains of development and stages of development. While the former emphasizes the processes that characterize development latter later on focuses certain age periods to manage the flow of time across child development. The following sections describe each of them in detail.

TOPIC: 03-07. GENERAL PRINCIPLES OF HUMAN DEVELOPMENT

Topic: 03.Principles 0f Human Development-1 Developmental psychologists believe that knowledge of an accurate pattern of development is fundamental to an understanding of children. There are several basic principles that characterize the pattern and process of growth and development. These principles describe typical development as a predictable and orderly process. Even though there are individual differences in children's personalities, attitudes, behavior, and timing of development, the principles and characteristics of development are universal patterns.

 1. **Development involves change**: - The human being is undergoing changes from the moment of conception to the time of death. There are different types of change that occur such a, changes in size, and proportions, the disappearance of old features and the acquisition of new features etc. The goal of these developmental changes is self-realization, which Abraham Maslow has labeled as self-actualization. Each individual is equipped with certain abilities and potentialities at birth. By utilizing the innate or inborn abilities one tries to realize and strive for self-actualization during the total life period. Children's attitude toward change is generally determined by their knowledge about these changes, social attitudes toward this change, and the way people of society treat to children when these changes take place.

 2. **Development is a continuous process**: - Development continues throughout the life of an individual. This process takes place in interaction with the environment in which a person lives. One stage of development is the basic framework for the next stage of development. A child has limited knowledge and experiences about his environment. But as he develops, he acquires more information through explorations and ads to the skills already acquired and the new skills become the basis for further achievement and mastery of skills. For example, the child is able to write and draw; he must have developed a hand control to hold a pencil and crayon. Thus, a person has vast experiences and knowledge as he grows up.

3. Development follows a direction and uniform pattern in an orderly manner: - (i) Development proceeds from the center of the body outward. This is the principle of proximodistal development that describes the direction of development (from nearer to far apart). It means that the spinal cord develops before outer parts of the body. The child's arms develop before the hands and the hands and feet develop before the fingers and toes. (ii) Development proceeds from the head downwards. This is called the cephalocaudal principle. According to this principle, development occurs from head to tail. The child gains control of the head first, then the arms and then the legs.

Topic: 04. Principles of Human Development-2

4. Individual Differences in the Development Process: - Even though the pattern of development is similar for all children but the rate of development varies among children. Each child develops as per his abilities and perception of his environment. Children differ from each other both genetically and environmentally. So, both biological factor and environmental situations have their impact on individual development which leads to individual differences in development. Understanding this fact of individual differences in rates of development should aware us to be careful about using and relying on age and stage characteristics to label children.

5. Development depends on maturation and learning: - Maturation refers to the sequential characteristic of biological growth and development. The biological changes occur in sequential order and give children new abilities. Changes in the brain and nervous system account largely for maturation. These changes in the brain and nervous system account largely for maturation. The child's environment and the learning that occurs as a result of the child's experiences largely determine whether the child will reach optimal development. An enriched environment and varied experiences help the child to develop his/her potential.

Topic: 05. Principles of Human Development -3

6. Development is predictable: - Human development is predictable during the life span. Although this development is influenced by both genetic and environmental factors, however, it takes place in a pre-defined manner. Specific areas of development, such as: different aspects of motor development, emotional behavior, speech, social behavior, concept development, goals, intellectual development etc. follow predictable patterns. For example, the growth of the child in height and weight etc. continue up to a certain age. In general, it is also found that all children follow a commonality in the development periods of life. All children generally grow following the periods like prenatal period and postnatal period. The postnatal period includes infancy, babyhood, childhood, puberty and so on.

7. Early development is more critical than later development: - Milton writes —The childhood shows the man, as morning shows the day.‖ Similarly, Erikson views —childhood is the scene of men's beginning as man.‖ He explains that if parents gratify the needs of the child for food, attention and love etc., his perception towards people and situation remains positive throughout his

life. He develops positive attitudes, feels secure, emotionally stable and adjusts well with the environment. If negative experiences occur during early life of the child, maladjustments may take place. Glueck concludes that delinquents can be identified as early as 2-3 years of age. Different researchers' view that the preschool year's age are most important years of development as basic foundation is laid down during this period which is difficult to change.

Topic: 06. Principles of Human Development-4

8. Development involves Social expectations: - In every society there are certain rules, standards and traditions which everyone is expected to follow. Development is determined by social norms and expectations of behaviors form the individuals. Children learn customs, traditions and values of the society and also what behaviors are expected from them. They realize from the approval or disapproval of their behavior. Social expectations are otherwise known as ―developmental tasks‖. Havinghurst defines developmental task as a ―task which arises at or about a certain period in the life of an individual. Developmental tasks arise mainly

(a) as a result of physical maturation;

(b) form the cultural pressures of society,

(c) out of the personal values and aspirations of the individual.

The developmental tasks remain the same from one generation after another in a particular culture. As societies are evolving, changing traditions and cultural patterns of a society are learned automatically by children during their development process. These developmental tasks help in motivating children to learn as well as help parents to guide their children.

9. Development has potential hazards: - Development may be hampered by various hazards. Hazards may be of physical, environmental, or psychological type. These hazards may be originated from the environment in which the child grows or due to hereditary factors. They have negative impact on the physical as well as socio-psychological development of the child. The growth of the child may be retarded, he may be an aggressive person or he may encounter adjustment problems. For example, if a child is slurring or stammering and parents neglect the child, the child may continue with this problem.

Topic: 07. Principles of Human Development-5

10. Happiness varies at different periods in the development process: - Childhood is the happiest period of life and puberty is unhappy. The patterns of happiness vary from child to child and it is influenced by the rearing process of the child. Paul B. Baltes stated six principles of development of life span approach.

The six principles of development are mentioned below:

1) **Development is a lifelong process**- Development is a process that continues throughout life. It begins at birth and ends in the death of an individual.

2) **Development includes both gain and loss during life** span. The child may develop in one area and lose in another area.

3) **Development is influenced the biological** factor and environmental situations- Human development is influenced by biological and environmental factors. For example, the body strength of the child develops in the early period but may deteriorate during old age.

4) **Development involves changing the allocation** of resources. It states that during different developmental periods, resources such as; time, money, social support, etc. are used differently. For example, during old age, people require more money to maintain their proper health.

5) **Development can be modified- This principle** reveals that through proper training development can be modified. For example, an individual can maintain his proper health by doing different exercises even in old age.

6) **Development is based upon the historical an**d cultural environment- The child grows, develops, and acquires knowledge about the traditions, rules, and regulations of society according to his historical and cultural environment.

Topic: 08. Factors Affecting Human Development

- Heredity factors
- Environmental factors

- Cultural factors
- Socioeconomic status (SES)
- Normative influences
- Nutritional
- Education and training

Human development is the process which the changes occur in all the aspects of an organism from conception to death. It is a natural process for each and every child to grow. But it is observed that all children do not grow in a similar fashion. Some children's physical growth occur earlier than others, some Individual differences in the development process

1-Development depends on maturation and learning

2-Development is predictable

3-Early development is more critical than later development

4-Development involves social expectation

5-Development has potential hazards

Lecture: 02
(Topics: 9-11)

Topic: 09.Biological Influences on Human Growth

Human development is a result of the interaction of biological, cognitive, socio-emotional and ecological processes. Genetic factors are the basic framework of the biological processes of development. For example, developments of brain, heart, lungs, nervous system etc.; depend largely on the hereditary characteristics of the individual. Similarly, changes in the height, weight, sex characteristics are parts of the biological processes of development. Each and every individual tries to keep himself/herself both physically and mentally healthy. There are differences among individuals due to the biological basis of self-preservation. For example, a child who is physically stronger can overcome various problems that come across in the growing up than the less physically strong child. Similarly, the child who is emotionally stronger and stable can face various problems in life than the other child. Thus, physical as well as emotional strength relates to genetic factors. Due to the genetic factor some children have the desire to live longer while other children have the death wish is stronger.

The biological influences are also observed in the needs of the children. For example, a child needs food when he is hungry; he requires water when he is thirsty and so on. These needs are associated with preservation of one's life. But how these needs are fulfilled depends upon socio-cultural influences. The biology of a person is interlinked with his behaviors. Thus, both body and mind are interdependent. Physical damage can result in mental problems and mental problems may affect physical well-being.

As human being lives in a society, with his biological endowments he interacts with different stimuli of the environment. Social traditions, culture, beliefs, nationality and others influence human behavior. Both culture and behavior of the individual are inseparable. Thus, human development and behaviors are combination of biological, social and psychological influences. For example, a child has talent in mathematics by birth due to hereditary factor but if the environment does support to develop his talent, the innate ability may not develop properly.

Topic: 10.Characteristics of Biological Influences on Human Growth and Behaviors:-

The human growth and behaviors can be understood from the characteristics mentioned below:

1) **Behaviors are reproduced in Successive Generations:**

Behaviors in species are handed over from generation to generation. In other words, the particular behavior continues over several generations. For example, goats live to move in flock.

2) **Change in Biological Process determines Change in** Behaviors: The changes in human growth and behaviors are determined by changes in biological processes. If there is a change in biological structure or process then it leads to changes in human growth and behaviors also. For

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example, if there is damage in a particular area of the brain of a person, the behaviors of that person may change as he may express more aggressiveness or emotionality. Similarly, the intake of certain drugs may change the brain chemistry which has produced behavioral changes of human beings.

3) Behaviors run in families/ Behaviors are transmitted in families: It has been observed in families that if a person in the family has a mental disorder; other members of the same family may have the same problem to some extent because they carry some similar genes which are transmitted over generations.

4) Genes are Evolutionary: Behavioral changes occur through evolutions of genes. The genes of chimpanzees and human beings are almost similar. So, chimpanzees are closest to human beings and their characteristics and behaviors are more or less similar to humans which can be traced on the basis of history of the evolution of genes.

Happiness varies at different periods of development are physically stronger than others; some are taller than others and so on. So far as mental development is concerned, some children have better cognitive ability, memory, reasoning, thinking ability etc. than others. All children also do not have same type of intelligence. Some have more musical talents, others have more intrapersonal intelligence, others also have more linguistic abilities etc. So, children differ from each other because several factors influence on their development. Some of the important factors have been enumerated below:

Topic: 11.Hereditary Factors:-

- **Biological factors refer to the genetic features that individuals receive from their parents**
- **General Health of a child maternal age, health, stress and nutrition are likely to influence a child's development**
- **Boys and girls are tend to develop differently**

Heredity exerts an influence on human development. The child carries genetic endowments from his/her parents. It is genetically transmitted characteristics from one generation to the next. The physical characteristics like height, weight, eye color etc. and psychological characteristics such as intelligence, personality, and creativity and so on are innately determined and hereditary. The genetic code provides the base on which brain and bodies grow and manifest in observable appearance and behavior. Boys and girls tend to develop differently.

Lecture: 03
(Topics: 12-17)

Topic: 12.Environmental Factors: - Environmental factors include parenting, nutrition, housing, education; culture, income, employment, health, services, safety etc affects a child's development. Another important factor of human development is the environment where an individual lives. The child lives and grows in his environment. The environment consists of a wide range of stimuli and it provides the necessary input and experiential base for the development of the child. Enrichment or

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impoverishment of the environment would produce differences in his abilities. For example, a child may have inherited music talent from his parents through the transmission of genes, but he may not excel in music field if he does not get the proper environment and support to develop his innate ability.

Topic: 13.Interpersonal Relationship: - Interpersonal Relationship is an important aspect of growth and development. There four important personality component of a child such as

- Physical
- Mental
- Social
- l

Interpersonal relationship is attached with the Social aspect. It tells about the social activeness, socialization of a child. Internal motivation is about to interact with the people. External motivation comes after sharing with the people. Attachment is an important word in Interpersonal relationship.

Maslow hierarchy needs a theory that describes

Biological needs

Safety needs: secure man with health mind full fills safety needs

Attachment needs: like child attachment with parents

There is a need to be strong attachment of child with the parents and de-attachment leads towards psychological trauma. Parenting style is of three types

- Authoritative parenting
- Authoritarian parenting
- Democratic parenting

Authoritative parenting pushes child to learn a lie because he or she feel fear to speak a truth. Parents try to make friendship with the children. If you did not teach your child then your child takes help from technology and Google will make their teacher. The gap of father and strict introduction of him is not good for the child.

Topic: 14.Home Environment:-

Home environment has three important factors that include Parental relationship, Parenting style and siblings.

Home environment exerts tremendous influence on a child's understanding of the external world. It builds self-concept and prepares him to face the external world. The child begins to acquire knowledge through interaction with parents and other family members. During his early years of development, the behaviors of the child are modulated by the home environment. The environment of the family can be supportive or stressful for the child. If it is the supportive, warm and

harmonious environment, the child develops normally. In unsupportive and stressful home environment, broken families or uncaring parents in the family, children may develop as maladjusted persons.

4) Cultural Factors: - Culture refers to a system of beliefs, attitudes and values that are transmitted from one generation to the next. It is a product of past human behavior and is also a shaper of future aspirations. The development of the child is influenced by family as well as by the society. The child learns the habits, beliefs, attitude, skills and standards of judgment through the socialization processes. The socialization processes of the child take place according to the culture, customs and traditions of the society. For example, greeting someone is a familiar experience but behavioral experiences are different in different cultures. In Indian culture, people greet others by saying namaskar, folding hands or lying down near the feet but in Western culture, people greet by handshake or kissing or saying hello etc.

5) Socioeconomic Status (SES):- Socioeconomic Status plays a pivotal role in human development. The index of socioeconomic status is determined by parental education, occupation and income. The children of low socioeconomic status may develop as mal-nourished, suffer from lack of knowledge in many aspects and their normal development may get hampered. The parenting in high socioeconomic status families would be different from low socio-economic status families. Children of the high socioeconomic groups of the society get better social opportunities, are nurtured with better nutrition, good medical treatment and are exposed to more intellectual stimulation than low socioeconomic group.

6) Normative influences: - Normative influences occur in a similar way for majority of people in a particular group. These influences may be biological or environmental. For example, biological events like sexual maturity or deterioration in old age. Environmental events, like entering the school at about 6 years of age, parenthood etc. has the same influences on individuals. Most of the people of the same age, at same place and time and generation have common biological and environmental influences such as floods, famines and other natural disasters. Non-normative influences include the unusual life events in an individual's life. For example, death of a parent when a child is young or birth defects etc.

7) Education and Training: - Each child is equipped with certain abilities which need to be nurtured through proper education and training. Therefore, the first and foremost step is to identify and recognize the ability of the child and the next step is to provide adequate opportunities to develop the same. If proper identification of the ability is not possible and adequate facilities are not available to the child, then his innate ability may not be developed. Thus, adequate education and training have influence on human development.

Topic: 15.Difference between Intelligence, Heredity and environment: -

Intelligence is a Heredity trait and the role of environment in increasing or decreasing intelligence is the discussion of the topic. One school of thought believes that its natural based on the genes

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transmitted among generations and another one believes that we can change it, increase it and polish it. Positive environment can improve and polish intelligence. Intelligence means cognitive abilities. A command of the mind will come in the result of body actions. Action or response of a child determines the intelligence of a child. Effect of parents on the intelligence of a child is also important. It happened due to genes (responsible for the genetic transformation from one generation to another). Positive environment can be flourished. Exploration, improvement and utilization of intelligence are dependent upon the environment provided by the parents. Puzzle games can play a role in the understanding of mathematical skills and can also increase the creativity, curiosity of a child as compared to role learning. Individual differences among children also existed with the environmental effects. Hence we can accept both heredity and environment are important for intelligence.

Topic: 16.Issues of human development: -

A number of controversies exist in the field of child development due to its complex nature. Researchers vary in their opinion about how children change and develop over time, what are these changes like, and what are the similarities and differences etc (see Keenan & Evans, 2009). These varied perspectives advance the knowledge about child development and psychology by guiding research in diverse areas of child development (e.g., social, emotional, intellectual, and physical development) and contradicting and integrating different views. The following sections present the most recurrent issues in the study of child development.

Heredity vs. Environment

Nature or Nurture (stability vs. plasticity)

The Active or Passive character of development

Continuous or discontinuous

Heredity vs. Environment

Another issue that concerns developmental psychologists is whether there is a single route of development or is there many? Stage theorists who believe that development occurs in a series of universal stages argue that the same sequence is followed everywhere. Yet, others acknowledge specific features of individuals and the distinct contextual factors in which they are brought up. They believe that child development is influenced by unique combinations of personal (e.g., heredity and biological factors) and environmental (e.g., home, school and community settings) circumstances, and thus, follows multiple and varied tracks.

Overall, researchers today are more concerned about the contextual factors that influence the course of child development. Most of them acknowledge both universal factors as well as the unique personal and contextual features in the study of child development.

Nature or Nurture (stability vs. plasticity)

Perhaps one of the most controversial questions in the study of child development is about its underlying cause. How does development take place? What are the basic factors that influence development? The answer to these questions sparks a debate about the possible role of nature versus nurture in human development.

The term nature implies that the biological and hereditary traits that we receive from our parents are responsible for our development. The theorists who stress the role of heredity in human development also emphasize stability (i.e., the children who are genetically high or low in certain traits will also remain so in adulthood). Whereas, the term nurture suggests that the complex environmental and cultural influences are accountable for human development. Likewise, the theorists who emphasize nurture believe that development is substantially plastic and open to changes throughout the lifespan. Thus, while the theorists attend to both nature and nurture in explaining human development, they vary in their emphasis.

However, the extreme positions on nature or nurture are no longer supported. Rather, it is argued that development is influenced by an interaction of both genetic and environmental factors. This interaction is becoming increasingly popular among researchers as well as the general public, for example, parents. In turn, researchers are encouraged to study the interplay between these two factors in order to understand how development takes place.

The Active or Passive character of development

For example, children's immediate environment is created by their parents. Since parents and children share a rather similar genetic structure, it is likely that the environments which parents create for their children would support their genetic traits such as painting, playing soccer etc. Similarly, genes may have an evocative relationship with the environment which helps to reinforce certain inherited traits. For example, a socially active baby would draw positive attention from other people. As a result of these social exchanges, it is likely that the baby's genetic tendency is strengthened. Moreover, a child's genetic disposition urges him/her to find a compatible environment for himself/herself. For example, a child with a musical talent would be inclined to join the music/singing club at school etc. This tendency gets stronger as the child moves into adulthood and takes the charge of their own environment.

On the other hand, the environment may also have a critical impact on genetic factors. For example, certain behavioral traits such as cognitive abilities etc change dramatically under supportive/unsupportive conditions. Similarly, different children react differently to their environmental circumstances (e.g., out of the two children coming from the same deprived context, one child performs slightly better under supportive conditions, whereas the other one performs way better).

Overall, genes and environment continue to act upon each other to form behaviors and patterns of development. These influences are unique to each individual, caused by multiple factors and lead to

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multiple directions. This is why; even the identical twins living in the same context may develop some dissimilar traits.

Continuous or discontinuous

One of the puzzling issues in the study of child development is how to characterize the nature of changes that occur with time? Are they best viewed as a part of a continuous? Process or do they take place in discontinuous stages? Some theorists believe that development is a smooth, continuous process in which rather simple knowledge, skills and behaviors are gradually accumulated to form complex knowledge, skills, and behaviors. This implies that the process of development proceeds in an organized and orderly way in which newer and complex behaviors are formed on the basis of previous abilities.

Contrary to this view, other theorists believe that development is a discontinuous process in which new skills and behaviors emerge in rather abrupt and disconnected ways. From this perspective, development takes place in stages and mostly involves a qualitative reorganization of knowledge, behaviors, skills and functioning.

It is important to note that how we choose to examine development (i.e., as a continuous or discontinuous process) affects our understanding and interpretation of the process as well.

However, instead of focusing on development as a continuous or discontinuous process, developmental psychologists urge to focus on the sources of continuity or discontinuity.

Overall, it is assumed that development has both continuous and discontinuous aspects.

Topic: 17.Stages of Human Development: -

This issue relates to the importance of various stages of development. Development is a continuous process. Early experience of the child is more important than the later experience, Therefore, if the proper experiences are not provided to the child at the right time; the development process may get affected. Developmental psychologists have observed that there are critical periods of development. The impact of appropriate stimulation during that period is optimal in specific kinds of behaviour than prior or later to that period. Several studies have been conducted on animals (K. Lawrenz, 1937; Harry Harlow, 1978) and later on human beings to see whether there are critical periods on human development. It has been observed that the first six months are a critical period for the health, emotional and social development of the child. Although some other research studies reveal the adverse experiences in early childhood can be mitigated (amended) to a certain extent in the later stage of life.

Human development is described in terms of stages covering the period from conception to death. Each stage of development includes a time period during the life span and has its own characteristics and a specific rate of development. But people vary with respect to time and rate of development

from one stage to another. Even though there is no consensus on classification of various stages of development, the human life span can be divided into eight developmental stages:

1. The prenatal period (conception to birth)

2. The stage of Infancy and Toddlerhood (birth to age 3)

3. The early childhood (3 to 6 years)

4. The middle childhood (6 to 11 years)

5. The period of Adolescence (11 years to about 20 years)

6. Young Adulthood (20 to 40 years)

7. Middle Adulthood (40 to 65 years)

8. Late Adulthood (65 years and above)

Lecture: 04
(Topic: 18)

Topic: 18.Physical Development from infancy to toddlerhood: -

Physical development in children is crucial since it provides them with the needed skills to explore and interact with the world around them. This section presents the course of physical growth and development in childhood. It also discusses the environmental factors which influence the physical development of children.

The course of physical growth includes changes in body size, proportions, muscle-fat makeup, and skeleton. It also includes gains in gross- and fine-motor skills (Berk, 2013).

Rapid Physical change

The most rapid changes in body size are observed during infancy. These changes are marked by an immense increase in the height and weight of the ch   n in early and middle childhood. While the first two years of life characterize rapid but decelerating annual growth trends, early and middle childhood follow slow but steady growth. A sharp increase in growth is again observed in early adolescence followed by a sudden decline when the adult growth is achieved.

Proportion of the body

As the body increases in size, different parts of the body grow at different rates and follow different patterns. Understanding these trends would help us to develop appropriate expectations of a child's physical abilities at different age levels.

The first trend in the growth of the child highlights the 'head to toe' pattern. For example, a baby would learn to hold up his head before he could walk. The next pattern follows the 'inside to outside' or 'center to outside' path. For example, the muscles around the trunk of the body grow stronger before the muscles in the hands, feet etc. Besides, growth also follows 'general to specific' and 'large to small' patterns of development during childhood.

Muscle to fat ratio also changes during the course of physical development. While the body fat increases at a faster rate in infancy to help the baby keep a consistent body temperature, it is considerably reduced during early and middle childhood. Whereas, muscles build up at a much slower rate during infancy and childhood, when compared to the adolescence period, as they start to develop rapidly.

Since children of the same age may grow and mature differently at different speeds, it becomes difficult to account for the causes and consequences of individual differences in physical development. Physical maturity is estimated by skeletal growth or age which specifies a measure of the development of body bones. It is based on the number of epiphyses (special growth centers which are present at each end of all long bones in the body) and the extent to which they are merged. This measure of an individual's physical development helps to understand the causes and consequences of individual differences in physical development of children.

Reflexes

Gross and fine motor skills

Gross motor involves all the big muscles in a human body. Gross-motor activities involve activities which require the use of big muscles and include crawling, walking, running, skipping and jumping. Children's gross motor skills experience considerable gains with the increase in body size, proportion, and muscle strength. The acquisition of motor skills is guided by the patterns similar to growth as described in section ii. For example, children will learn to move in a random fashion before they can make precise movements to achieve desired results (i.e., general to specific movement).

On the other hand, fine motor skills require precise control of muscles and coordination of body movements to perform different activities such as drawing, writing, and cutting with scissors. With time and experience, children acquire a complex system of fine motor skills featuring a dynamic interplay of brain, body movement, motivational and contextual factors. Physical growth and development is dependent on both biological and environmental factors. While biological structure and hormonal influences play a central role in manipulating physical development; environmental influences such as nutritional intake, emotional well-being and cultural practices are also critical (Berk, 2013). Physical growth is highly dependent on nutritional intake, and opportunities for play and physical activities. It is important that children do not only eat sufficient food, but also eat the right kind of food to maintain healthy physical growth and development. Besides, anxiety, fear and emotional deprivation may hinder physical development of children.

Lecture: 05
(Topic: 19)

Topic: 19.Social and Emotional Development from infancy to toddlerhood: -

- **2 months show social smiling**
- **4-6 months laugh, anger and sadness**
- **Express affection as a form of emotion to others as a part of social emotional development**
- **Children are attached with their care**
- **Givers, parents and other siblings**
- **If detached feel anxiety**

Infants at about two months old demonstrate social smiling in response to human faces. When they are four months old, they show laughter and express anger, sadness and surprise by six months. By 8 or 10 months, they actively seek information about other people's feelings. They learn to respond when somebody calls them by their names at about age six to twelve months. They also have face to face contact. They are afraid of when their parents or care-taker leaves them. They start expressing anger if their needs are not met. Thus, social and emotional development starts during the period of infancy to toddlerhood itself. Children start expressing their feelings of trust, fear, confidence, love, etc. They express affection as a form of emotion to others as a part of social emotional development. If a child is neglected during this period, it affects his social emotional development negatively. During this period children are attached with their caregivers, parents and other siblings, etc., so children develop separation anxiety if they are separated from them. This appears at the age of nine months.

Lecture: 06
(Topic: 20)

Topic: 20.Cognitive Development from infancy to Toddlerhood: -

- **Making various sounds like gurgling, cooing, etc.**
- **Gradually learn the relationship between their actions and the external world.**
- **Can manipulate various objects to produce effects.**
- **Infants seem to acquire knowledge about the world only**
- **through motor activities and sensory impressions**
- **Around the end of the 9th month infants demonstrate object permanence and say mama,papa**

Infants express their intellect by making various sounds like gurgling, cooing, etc. They observe their own hands and feet. They gradually learn the relationship between their actions and the external world. They can manipulate various objects to produce effects. Infants seem to acquire knowledge about the world only through motor activities and sensory impressions. They try to focus their eyes on various objects and people, and put everything in their mouth. Children develop the ability to

form mental representation during infancy. Around the end of the 9th month infants demonstrate object permanence. By babyhood stage they learn to make sounds like mama, papa, they try to copy various activities as others do. By 12 months of age many children are able to say some words which can be understood by others. During infancy children start developing language ability, learn through their sense organs and explore the world in their own ways. In this period children are dependent on others whereas in the toddlerhood stage, creativity and socialization begins. In infancy, emotions are of simple type but in toddlerhood emotions are of varying types and growth is faster than other periods of life.

Lecture: 07
(Topics: 21-23)

Topic: 21.The Childhood Stage: Physical development: -

- **This stage includes two sub-stages: one is early childhood and another is late childhood**
- **Period between the ages of 3 to 11 years**
- **Children gain 2 to 3 inches in height and 5 to 6 pounds in weight every year**
- **They learn to walk, run, jump and play.**

  roundness.
- **The late childhood period extends from 6 to 11 years. This period is known as pre-adolescence.**

This stage includes two sub-stages: one is early childhood and another is late childhood. This period covers the period between the ages of 3 to 11 years. Sometimes the girls at 13 years and boys at 14 years of age are considered adolescents and till then the child is considered being in the childhood stage. During this period significant physical and psychological changes take place. But compared to infancy, the growth rate is slow but stable during childhood. In this stage, children gain 2 to 3 inches in height and 5 to 6 pounds in weight every year. They learn to walk, run, jump and play. They can gain knowledge to distinguish between what is good and what is bad. Their physical capacities increased independently, they performed tasks and met adult expectations in several ways.

Physical Development:

Early childhood stage covers the age range from 3 to 6 years. Children begin to develop athletic appearance and they lose their babyish roundness. As abdominal muscles develop, the trunk, arms and legs grow longer. Their brain and head grow rapidly than any other parts of the body.

The late childhood period extends from 6 to 11 years. This period is known as pre-adolescence. The different parts of the body become stronger during this period. Children learn to use their body parts appropriately with speed and for proper behaviors. During the late childhood period some of the habits like table manners, interactions with others, eating appropriately, etc. may also be modified wherever needed. In this period importance is given to the physical strength of children. If

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a particular child is not growing physically at par with other children of his age, the child may be emotionally and socially depressed.

Topic: 22-Psycho-Social Development of Childhood: -

In the early childhood stage children can say full sentences, express their feelings and emotions and communicate their needs and feelings and emotions and communicate their needs and feelings with others. During early childhood children have better control of their physical movement and can have better coordination of their body parts. They also learn how to cooperate with other children and conflict resolution when they are about the age of five or six years they are independent in various ways.

There are three important socio-emotional developments, such as; development of self, gender roles and moral development, take place during childhood. Through the process of identification the child comes to know who he is and differentiates from who he wants to be. The child is aware of this process through his observation and imitation of parents and significant others. The child's personality is laid down by this identification. The child learns the socially appropriate behaviors by observing and participating in the social events. When the children are about the age of 5 to 6 years they can understand that they belong to a particular gender and also learn to behave gender roles.

When the children enter into school, their interaction is changing from supervising adults to classmates. As the social environment changes the children begin to experience feelings of independence and freedom from authority through negotiation, compromise and discussion. Social identification and social comparison help them to describe themselves. Parenting style plays an important role in psycho-social development of children. A balanced parenting style which is neither permissive nor authoritative is acceptable and helps in the social and emotional development of children. But children of authoritative parents are afraid of their parents and children of permissive parents are impulsive and immature. Besides parenting style peer group influence has also an impact on the socialization process of children. During the childhood period the children are able to differentiate between right and wrong. They experience feelings of guilt by making a mistake, and feel sorrow and happiness for them. These are experienced by the children due to their moral development.

Topic: 23-Cognitive Development of Childhood: -

The childhood period is important for cognitive development of children. Children are curious to know the answers of questions like, ―why‖, ―Where‖ and ―How‖ for everything that happens. Cognitive abilities include memory, reasoning, perception, problem solving and thinking abilities which continue to emerge throughout childhood. Jean Piaget worked on childhood cognitive development.

He concluded that children are not less intelligent than adults but they simply think differently. Piaget explained that human beings acquire knowledge through interaction with the environment in which he lives in, Piaget named early childhood (2 to 7 years) as the preoperational stage of cognitive

development in which there is a great expansion in the use of symbolic thought, or representational ability. But they are not able to use logic. In this stage children do not need to be in sensory motor contact with an object, person or event in order to think about it. They are aware that superficial alterations do not change the nature of things and also understand the cause-effect relationship. They develop the ability to classify objects, people and events. Children can count and deal with quantities. They become more able to imagine how others might feel and aware of mental activity and the functioning of the mind. For example, Ranu saw a pencil rolling down from behind and she looked back for the person who threw it.

According to Piaget children enter the concrete operational stage during middle childhood period which begins at about age 7 and ends at age 12 years. In this period children can use mental operations to solve actual problems and they can think more logically. They can perform many tasks at a much higher level than before. They have developed abilities to use maps and models and to communicate spatial information improve with age. They have a better understanding of cause and effect relationship, of categorization of inductive and deductive reasoning and of conservation.

Lecture: 08
(Topics: 24-26)

Topic: 24- Physical development of adolescence: -

- **Adolescence is the developmental transition between childhood and adulthood entailing major physical, cognitive and psychological changes.**
- **As this is the transitional phase of life adolescents' rebel against their parents and society most often. Therefore, this period is labeled as storm and stress period.**
- **Sexuality and identity formation are two major challenges of the period of adolescence**
- **The approximate age for sexual maturation is 12.5 years for boys and 10.5 years for girls**
- **Sex hormones like testosterone in males and estrogen in females are secreted from the sex glands.**

The term adolescence is derived from the Latin word adolescence, which means to sprout into maturity. It is the intermediate period between childhood and adulthood. This period is otherwise called the age of teenagers. It includes three sub periods, such as: early adolescence (12 years -14 years), middle adolescence (14 years -17 years) and late adolescence (17years -19 years). Adolescence is the developmental transition between childhood and adulthood entailing major physical, cognitive and psychological changes. During this period physical changes that occur are universal, but social and psychological changes largely depend on the cultural contexts. As this is the transitional phase of life adolescent's rebel against their parents and society most often. Therefore, this period is labeled as storm and stress period.

Sexuality and identity formation are two major challenges of the period of adolescence. During this period the most rapid physical growth occurs. There are changes in the growth rate, sexual

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characteristics, and behavior. Adolescent boys and girls develop in their height, weight, strength and development of bones, muscles, etc. Puberty and sexual maturity for both boys and girls marks the beginning of the adolescent period. Growth spurts and development of secondary Sex characteristics signal about the onset of adolescence. Menstruation is the first sign of puberty for girls whereas the appearance of a few whiskers is the sign of puberty for boys. The approximate age for sexual maturation is 12.5 years for boys and 10.5 years for girls. Puberty begins in response to changes in the hormonal system.

Sex hormones like testosterone in males and estrogen in females are secreted from the sex glands. The secretion of sex hormones helps in pubertal development and is also closely associated with emotions. During this period emotion like aggression is found in boys and depression is marked in girls. They try to imitate their idols.

Girls are conscious about their shapes and do what their friends do while boys try to go for bodybuilding.

Topic: 25-Psycho-Social Development of adolescence: -

- **Adolescents are very self-conscious and it is expressed in the concept of imagery audiences.**
- **Peer group influence is very important during adolescence.**
- **Adolescents abuse alcohol and drugs under peer pressure.**
- **In this period if an adequate atmosphere is provided to them and they get high parental support, then they can develop their abstract thinking, reasoning skills and other social behaviors.**
- **They have their own expectations and they are also very emotional during this period.**

During this period the physical changes in adolescents bring about a wide variety of psychological changes. Adolescents become innovative and take interest in learning various skills with great interest. They feel that no one understands them, and they often consider themselves to be „superman". Their sense of uniqueness is expressed in the form of personal fables around them away from the world of reality. They are argumentative and they have a tendency to find fault with the authority figures. They are not able to differentiate between ideal and real. Adolescents are very self-conscious and it is expressed in the concept of imagery audiences. These imaginary audiences criticize, encourage and motivate an adolescent. Peer group influence is very important during adolescence. They want to do what their friends are doing,

Adolescents abuse alcohol and drugs under peer pressure. Developmental psychologists viewed adolescence as a period of risk, turmoil, uncertainty and conflict, if proper care is not taken during this period children become antisocial, abusive or depressed. They also develop eating disorders if they are not getting proper love and affection from the parents. In this period if an adequate atmosphere is provided to them and they get high parental support, then they can develop their abstract thinking, reasoning skills and other social behaviors. The important task of adolescents is to establish an identity independent of their parents. They do not like anyone to interfere in their

opinions, trust, beliefs and decision making process. They have their own expectations and they are also very emotional during this period. Adolescents suffer from different problems like teenage pregnancy and juvenile delinquency. So, positive relationships with parents, peers, siblings and adults play an important role during adolescence.

Topic: 26- Cognitive Development of adolescence: -

- **Piaget opined that adolescents enter the highest level of cognitive development, i.e. formal operational stage of cognitive development.**
- **Teenagers develop their reasoning skills and engage in hypothetical deductive reasoning**

During adolescence not only do changes in body structures occur but also they think differently from younger children. Jean Piaget opined that adolescents enter the highest level of cognitive development, i.e. formal operational stage of cognitive development. During this period adolescent thoughts change from concrete objects to abstract events. They can think flexibly enough about the world. They accumulate knowledge through interaction and apply the learned concepts to new tasks. Teenagers develop their reasoning skills and engage in hypothetical deductive reasoning. As adolescents develop their logical thinking, they are becoming aggressive and argumentative. They are able to understand abstract concepts such as congruence and mass and they think in terms of theoretical concepts. They are conscious about others' opinions regarding them and curious enough to know about spirituality, traditions and beliefs. Thus, during adolescence people deal with problems on an abstract level, to form hypotheses and to reason from propositions that are contrary to fact. Paget's theory of cognitive development has been criticized on the following grounds:

a) Piaget has given too much emphasis on physical maturation based on cognitive development.

b) He has not included environmental factors and experiences that people accumulate during the process of growing up.

c) He has overlooked the concept of the individual differences in his theory.

Lecture: 09
(Topics: 27-30)

Topic: 27-Adulthood Stage: -

Robert Having Hurst lists major tasks in the middle years:

- **Accepting and adjusting to physiological changes, such as menopause.**

- **Reaching and maintaining satisfaction in one's occupation.**

- **Adjusting to and possibly caring for aging parents.**

- **Helping teenage children to become responsible adults.**

22

- **Achieving adult, social and civic responsibility.**

- **Relating to one's spouse as a person.**

- **Developing leisure time activities.**

An adult is someone who is responsible, mature, self-supporting and well integrated into society. Also people do not develop these attributes and characteristics at the same time and with the same skills. This adult stage has three sub-stages of development. First stage is early adulthood, the second stage is middle adulthood, and the third stage is late adulthood.

In early childhood, adults are at the peak of physical health, strength and energy. Sensory and motor systems are at their highest functioning. Adults gain weight and their height increases. They develop intimate relationships; they marry and begin their families. At this period of life adults take many important decisions of life like choice of career, type of friends, residence, etc. independently and accept responsibility and consequences for their own decisions. Every adult tries for recognition, job security and to excel in his job.

Middle adulthood period is explained in terms of a gradual decline in one's physical abilities, physical health, stamina etc, but the decline is gradual in nature. Both men and women feel tired easily. In this period people experience stress due to the double responsibility of caring for the aged parents and the growing children. Women usually experience hormonal changes which results in the loss of ability to reproduce, a process called menopause. Many psychological and intellectual changes occur in middle age. During this period, women express more assertiveness and men are more nurturing. The term —late adulthood‖ is roughly equivalent to old age. This is the final stage of physical change.

Some people suffer from depression due to the middle age crisis by thinking that some important years of their lives are over while some others try hard to achieve their goals by changing their lifestyles. Some people engage themselves in creative activities to get self-satisfaction. Other people get worried about the future of their children and some start worrying about their post retirement activities.

Topic: 28-Physical characteristics of Adulthood Stage: -

- **This adult stage has three sub-stages of development. First stage is early adulthood, the second stage is middle adulthood, and the third stage is late adulthood.**
- **At this period of life adults take many important decisions of life like choice of career, type of friends, residence, etc. independently and accept responsibility and consequences for their own decisions.**
- **Middle adulthood period is explained in terms of a gradual decline in one's physical abilities, physical health, stamina etc., but the decline is gradual in nature. Both men and women feel tired easily.**

Physical growth and development is at its maximum during this period. Physical strength usually is more than previous years due to mature physical structures. Strength, speed, coordination and

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endurance for activity is greatest during this period. A number of sensory and neural functions are at optimal levels during this period. Full brain weight and mature brain wave patterns are observed at this stage of development. Changing lifestyle patterns has an impact on growth and development. In the middle adulthood period (during 20s) there is a decline in our physical stamina and health. At that time physical functioning are generally perfect, but physical attractiveness declines and biological changes in the sexual life occur. The physical changes like loss of elasticity of the skin, resulting in facial lines as well as looseness in other parts of the body are easily noticeable through external physical appearance. There is a marked change in visual activity.

People suffer from presbyopia – the farsightedness associated with aging. The auditory problem is also associated with increasing age, i.e. presbycusis. It means progressive loss of hearing. In this period loss of taste, smell and sensitivity to touch also occurs. Some physiological changes like enlargement of prostate gland, less enzyme secretion in the gastrointestinal tract, diminished ability to pump blood, reduced kidney functioning, etc. take place.

Topic: 29-Psycho-Social Stage of Adulthood: -

It is another important aspect of adulthood. It addresses pattern of socializations. Socialization is further linked with the personality. Personality are two type usually one is introvert and second off extrovert. Extrovert people like socialization and make friends.

During early years of adulthood, people face the problem of choosing, preparing for and entering into careers that bring a lot of social changes in the adult. They have cordial relationships with their siblings. They spend very little time with friends because their energies are consumed for family and work. Middle adulthood people have children of adolescent age. It is very difficult to handle their problems. Conflicts occur between parents and children regarding ‒giving‖ and ‒getting‖ independence. Parents have to help their children in their search for identity. Middle aged adults also have important responsibilities towards their parents. In this period they also try to be satisfied at work. People are worried about their jobs and pay packages because they have to meet the daily needs of themselves and of the family.

Topic: 30-Cognitive Development of Adulthood: -

Intellectual ability and cognitive skills are high in early adulthood. Middle adulthood people cannot learn new skills. Recent research suggests that intellectual development continues into late adulthood. Intellectual development continues and that is influenced by the accumulation of the experiences of life, i.e. verbal skills, social knowledge and moral judgments. During this period people show changes in logic and morality. It is observed that creativity peaks in early adulthood but forms of creativity that require experience, revision and interpretation either remain unchanged or increase in middle age. People utilize their cognitive skills and creativity particularly at the workplace in order to get recognition. Studies revealed that intelligence declines with age, but there is no certainty that intelligence and age are related to each other.

Lecture: 10
(Topics: 31-35)

Topic: 31- Late adulthood: -

The term late adulthood is rightly equivalent to old age. This is the final stage of physical change. It is difficult to consider the exact age of a person for being old. The onset of old age may vary from country to country. Although the retirement age is considered as one of the criteria of old age, it varies from job to job. For example, in India the retirement age for government organization is 58 years while for Universities it is 62 years and in some other institutions like IIT and IIM it is 65 years. Now-a-days people beyond 70 years old are considered old.

It is the period of decline where the person thinks that he has done what he wanted to do and most of his life span is over. Today researchers used two categories to describe old age people.

(i) The young Old: This category of older people irrespective of their actual age, are vital, vigorous and active.

(ii) The Old: Those older individuals who are infirm, inactive and suffer from physical problems include in this group. As older persons suffer from physical problems, they become less active.

During the late adulthood period significant changes take place which are mentioned below.

Topic: 32-Physical stage of late adulthood: -

There are changes in the body like wrinkles in face, rough skin, gray hairs, problems in hearing and eyesight, bones and joints problems, change in voice, etc. They may suffer from various diseases. Old people also suffer from irreversible mental problems, which are organic in nature and is called **Alzheimer's disease.**

The experiences of old age are not same for everybody. Some people are worried about old age particularly those who are single or there is nobody in the family to support them economically or have continued physical ailments. It is a period in one's life span that is characterized by physical decline. There are two types of physical changes during old age. They are (a) Primary ageing and (b) Secondary ageing. Primary ageing is that in which bodily deterioration occur by the passage of time or by genetic factors which is gradual and inevitable. Secondary ageing results from disease, disuse or abuse of body which is preventable. Many structural and functional changes occur as people reach old age. Common physical changes like decrement in sensory abilities of vision, hearing, taste, smell and other senses, skin becomes inelastic, decrease in fat and muscle tissue, loss of teeth, deterioration of bone tissue, decline in height due to compression of spinal disc and postural strop etc. occur due to primary ageing. Physical changes occur due to secondary ageing are also different for different people. For example, physical changes of diabetic people are different from persons who are suffering from arthritis. Old people are also inefficient in sensory-motor coordination. They cannot respond to the physical demands of stressful situations as quickly or efficiently as possible.

They are prone to accidents due to decline of reserve capacity of physical energy. Thus, ageing affects appearance, sensation and motor abilities of a person.

However, despite the problems of old age some people lead a happy life due to their positive thinking towards life and they are physically fit by doing yoga and exercises. They are developing and enjoying their hobbies and their perception of old age for relaxation help them free from different ailments.

Topic: 33-Psycho-Social stage of late adulthood: -

Many psycho-social changes happen to people during old age. The statement that old age is a period for waiting death can prove to be a myth. Commonly people believe that old age is a curse so far as physical and psychological aspects of life are concerned.

According to Erikson during late adulthood the outcome of a well-integrated person is wisdom. Wisdom means accepting life as it is, accepting imperfections in self, parents and in life and having no regrets. Old people remain in a state of inward depression and dissatisfaction. These internal feelings are manifested in reaction formations for which they become over sensitive and demanding. Some old people depend on their children to a large extent. This undue dependence makes them sad. But those people who are independent and less expectations from their children and other support system, they are happy in their old age and they engage themselves in various activities. They think that old age is the golden age because they are free from family responsibilities and burdens of job. There are many social and cultural factors influence the process of successful ageing. Financial security and close relationship with children or other relatives or good friends make people healthy in old age.

Ageing is a process of growing old. The most important theory that explains the psychosocial aspects of ageing are: **(i) The activity theory (ii) The disengagement theory**.

(i) **The Activity Theory:** This theory states the relationship between keeping active and ageing well. According to this theory, persons who are successfully keep themselves busy in many activities and they find substitutes for activities which they have lost due to retirement and also they perform many roles. As role decreases, ageing increases.

(ii) **The Disengagement Theory:** This theory reveals that successful ageing by mutual withdrawal between society and the older person. Generally, older people voluntarily minimize their activities by retiring and also society encourages this by making individuals retire.

Topic: 34-Cognitive stage of late adulthood: -

People commonly believe that with old age intellectual decline occurs. Intellectual decline is associated with respect to certain functions such as; speed, perceptual integration ability, memory and inductive reasoning. People show variability in intellectual functioning in late adulthood period.

Researchers classified intelligence into two types. They are: **(1)** **Fluid intelligence** and **(2)** **Crystallized intelligence**. Fluid intelligence declines as age increases. Fluid intelligence involves the ability to perceive relations, form concepts and reason abstractly. Crystallized intelligence involves the ability to remember and use learned information. Fluid intelligence includes reasoning, memory and information processing capabilities, whereas crystallized intelligence is the acquired knowledge of the person. During old age people forget that it may lead to dementia or Alzheimer's disease which is possible due to Fluid intelligence, because it relates to neurological functioning. On the other hand, crystallized intelligence helps in storing information. Therefore, in old age people should keep their minds active by mental exercises such as problem solving analysis and other operations etc.

Topic: 35- Summary of all stages of late adulthood: -

- Human development is related with physical, social, emotional and cognitive development of individuals.
- There are different issues in human development. They are: a) development relates to heredity or environment, development is a continuous process or takes place in various stages and what are the critical periods of development.
- Stages of human development have been classified in various ways by different psychologists. Erikson has classified human development in terms of psycho-social development, whereas Freud explained this based upon psychosexual stages.
- The infancy and toddlerhood period is from birth to 3 years of age which is an important age for physical, social, emotional as well as cognitive development.
- Childhood stage is from 3 years to 11 years. During this stage growth rate is slower in comparison to the infancy and toddlerhood stage. In this period children develop social and language ability.
- cognitive development, such as: Sensory-motor stage, Pre-operational stage, Concrete operational and Formal operational stage.
- The adolescence period is generally from 11 years to about 20 years of age.
- This is the most crucial period for development. During this period children develop physically and psychologically. They want to make their own decisions independently. As they are neither considered as children nor adults, they feel that nobody understands them.
- The adulthood stage can be classified as young adulthood and middle adulthood stage. The middle adulthood stage is also known as the middle age period in which people start ageing. In the young adulthood period people develop relationships and settle down with family and work.

- The late adulthood stage is also called old age. Generally during this period people are physically weak and they may suffer from various diseases. Some people enjoy this period of life as they are free from their responsibilities. These stages of development depend upon the environmental factors of specific countries. For example, in India some children do not get nutritious food for which they suffer from various diseases even in their childhood.

Lecture: 11
(Topics: 36-39)

Topic: 36- Theories of Human Development: Concept of theory: -

- **A supposition or a system of ideas intended to explain something, especially one based on general principles independent of the thing be explained is called theory.**
- **Behaviorism theories**
- **Cognitive theories**
- **Humanistic theories**

Theories are different schools of thoughts based on the different point of view of theorists. Theories are valuable tools for understanding human behavior; in fact they are proposed explanations for the ―how‖ and ―whys‖ of development. Have you ever wondered, ―Why is my 3 year old so inquisitive?‖ or ―Why are some fifth graders rejected by their classmates?‖ Theories can help explain these and other occurrences. Developmental theories offer explanations about how we develop, why we change over time and the kinds of influences that impact development.

A theory guides and helps us interpret research findings as well. It provides the researcher with a blueprint or model to be used to help piece together various studies. Think of theories as guidelines much like directions that come with an appliance or other object that requires assembly. The instructions can help one piece together smaller parts more easily than if trial and error are used.

Theories can be developed using induction in which a number of single cases are observed and after patterns or similarities are noted, the theorist develops ideas based on these examples. Established theories are then tested through research; however, not all theories are equally suited to scientific investigation. Some theories are difficult to test but are still useful in stimulating debate or providing concepts that have practical application. Keep in mind that theories are not facts; they are guidelines for investigation and practice, and they gain credibility through research that fails to disprove them.

There are different schools of thoughts about learning like behaviorism, cognitive and humanistic. One of the old schools of thought in human development is behaviorism that is based on stimulus (motivating force) response and association between them. Teachers and parents stimulate the child while association may be positive or negative. Another school of thought is cognitive based on mind (intellect) and mental abilities. They rejected the behaviorism school of thought. Third school of thought is humanistic theorists. Learning should be affected with love and affiliation with internal motivation. It is based on interests, emotions, feelings and motivations.

Topic: 37- Sigmund Freud's Psychosexual Theory: -

- **Freud explained that personality is motivated by inner forces about which individuals have little awareness and over which they have no control.**
- **Concept of instinct or drive which is known as urges**
- **Much of our behavior is motivated by the unconscious.**
- **People develop through conflict between their primary drives (sex and aggression) and social pressures**

28

It is also called psychoanalytical theory. It is represented by Sigmund Freud (1856-1939). Freud has been a very influential figure in the area of development; his view of development and psychopathology dominated the field of psychiatry until the growth of behaviorism in the 1950s. His assumptions that personality forms during the first few years of life and that the ways in which parents or other caregivers interact with children have a long-lasting impact on children's emotional states have guided parents, educators, clinicians, and policy-makers for many years. We have only recently begun to recognize that early childhood experiences do not always result in certain personality traits or emotional states. There is a growing body of literature addressing resilience in children who come from harsh backgrounds and yet develop without damaging emotional scars (O'Grady and Metz, 1987). Freud has stimulated an enormous amount of research and generated many ideas. Agreeing with Freud's theory in its entirety is hardly necessary for appreciating the contribution he has made to the field of development.

Freud's theory is based on urges and these surges may be physical or biological (Like hunger, thrust, and sexual desire). When a child does not get satisfaction from their urges then conflict occurs. There is a need for balance between urge and satisfaction for a personality. Abnormalities occur due to imbalance.

Topic: 38-

- **He has categorized the structure of personality into two:**

a)

b)

- **Topographical aspects of mind:**
- **Freud has divided the structure of mind into three levels:**

1) **The conscious,**

2) **The preconscious or the subconscious and**

3) **The unconscious**

Dynamic aspect of mind

- **T**
- **The Id is a completely amoral part of the personality that exists at birth which contains all of the basic biological drives related to hunger, sex, aggression and irrational impulses**.

Freud's theory of self suggests that there are three parts of the self.

The id is the part of the self that is inborn. It responds to biological urges without pause and is guided by the principle of pleasure: if it feels good, it is the thing to do. A newborn is all id. The newborn cries when hungry, defecates when the urge strikes. The ego develops through interaction with others and is guided by logic or the reality principle. It has the ability to delay gratification. It

knows that urges have to be managed. It mediates between the id and superego using logic and reality to calm the other parts of the self. The superego represents society's demands for its members. It is guided by a sense of guilt.

Values, morals, and the conscience are all part of the superego. The personality is thought to develop in response to the child's ability to learn to manage biological urges. Parenting is important here. If the parent is either overly punitive or lax, the child may not progress to the next stage. Here is a brief introduction to Freud's stages.

Topic: 39- Stages of Psychosexual Theory: -

The process of personality development of the child is divided into the following five overlapping stages:

1. **Oral Stage (birth to 12-18 months)**

a) Oral sucking

b) Oral biting

2. **Anal Stage – (12-18 months to 03 years)**

a) Anal Explosive

b) Anal Retentive

3. **Phallic Stage (3 to 5 – 6 years)**

4. **Latency Stage (5 – 6 years to adolescence)**

5. **Genital Stage (Adolescence to adulthood)**

Sigmund Freud's Psychosexual Theory

Name of Stage Descriptions of Stage
Oral Stage
The oral stage lasts from birth until around age 2. The infant is all id. At this stage, all stimulation and comfort is focused on the mouth and is based on the reflex of sucking. Too much indulgence or too little stimulation may lead to fixation.
Anal Stage
The anal stage coincides with potty training or learning to manage biological urges. The ego is beginning to develop in this stage. Anal fixation may result in a person who is compulsively clean and organized or one who is sloppy and lacks self-control.
Phallic Stage
The phallic stage occurs in early childhood and marks the development of the superego and a sense of masculinity or femininity as culture dictates.

Latency

Latency occurs during middle childhood when a child's urges quiet down and friendships become the focus. The ego and superego can be refined as the child learns how to cooperate and negotiate with others.

Genital Stage

The genital stage begins with puberty and continues through adulthood. Now the preoccupation is that of sex and reproduction.

Lecture: 12
(Topic: 40)

Topic: 40- Review of Psychosexual Theory: -

- **This theory has been criticized on the ground that it lacks scientific validity.**
- **Freud made his observations by observing few patients and developed his theory. His theory has had an impact on western culture.**
- **This theory emphasizes that personality of the individual is influenced by childhood experiences.**
- **This theory neglects the importance of healthy personalities.**

Strengths and Weaknesses of Freud's Theory

Freud's theory has been heavily criticized for several reasons. One is that it is very difficult to test scientifically. How can parenting in infancy be traced to personality in adulthood? Are there other variables that might better explain development? The theory is also considered to be sexist in suggesting that women who do not accept an inferior position in society are somehow psychologically flawed. Freud focuses on the darker side of human nature and suggests that much of what determines our actions is unknown to us. So why do we study Freud? As mentioned above, despite the criticisms, Freud's assumptions about the importance of early childhood experiences in shaping our psychological selves have found their way into child development, education, and parenting practices. Freud's theory has heuristic value in providing a framework from which to elaborate and modify subsequent theories.

Lecture: 13
(Topics: 41-44)

Topic: 41- Erik Erikson's Psychosocial Theory: -

- **Erik Erikson (1902 – 1994) was German born psychoanalyst, a pioneer in a life span perspective**

- **Theory of psychosocial development covers eight stages across the life span.**

- **Each stage involves a "crisis" in**

- **Personality –**

- **In each stage there is the balancing of a positive tendency and a corresponding negative one**

Erik Erikson (1902 – 1994) was a German born psychoanalyst, a pioneer in a life span perspective. Erikson viewed that ego development occurs through one's lifetime. Erikson (1950-1982) theory of psychosocial development covers eight stages across the life span. According to Erikson each stage involves a –crisis‖ in personality – that is important at that time and will remain an issue to some degree throughout the rest of life. In each stage there is the balancing of a positive tendency and a corresponding negative one. Initiative vs. guilt is a conflict children face between their urge to form and carry out goals. When they fail to reach their goals, they feel guilty. The sense of right and wrong morality emerges as a result of identification with the parents. Children can resolve this crisis to acquire the virtue of purpose. Erikson defines it as the courage to envisage and pursue valued goals. Children can then develop into adults who combine spontaneous enjoyment of life with a sense of responsibility. Those who cannot resolve this crisis may become repressed. If initiative dominates, they must continue to believe. Erikson's last stage is ego-integrity. The virtue of this stage is wisdom. As Erikson mentioned different stages of human development, crisis is very typical of each stage and resolution of it is a must. Resolution requires balancing a positive trait and a corresponding negative trait. Both are required for healthy development. If either of the two predominates, there will be imbalance and the conflict remains. Hence the development of ego suffers.

Erikson suggested that our relationships and society's expectations motivate much of our behavior in his theory of psychosocial development. Erikson was a student of Freud's but emphasized the importance of the ego, or conscious thought, in determining our actions. In other words, he believed that we are not driven by unconscious urges. We know what motivates us and we consciously think about how to achieve our goals. He is considered the father of developmental psychology because his model gives us a guideline for the entire life span and suggests certain primary psychological and social concerns throughout life.

Erikson expanded on his Freud's by emphasizing the importance of culture in parenting practices and motivations and adding three stages of adult development (Erikson, 1950; 1968). He believed that we are aware of what motivates us throughout life and the ego has greater importance in guiding our actions than does the id. We make conscious choices in life and these choices focus on meeting certain social and cultural needs rather than purely biological ones.

Humans are motivated, for instance, by the need to feel that the world is a trustworthy place, that we are capable individuals, that we can make a contribution to society, and that we have lived a meaningful life. These are all psychosocial problems. Erikson divided the lifespan into eight stages. In each stage, we have a major psychosocial task to accomplish or crisis to overcome. Erikson believed that our personality continues to take shape throughout our lifespan as we face these challenges in living. Here is a brief overview of the eight stages:

Topic: 33- Stages of Erik Erikson's Psychosocial Theory-1: -

- **Stage 1-----birth to 1 year---**
- **Trust versus mistrust**
- **Stage 2 -----1-3years**
- **Autonomy versus Shame and Doubt**
- **Stage 3 -----3 to 5 years old**
- **Initiative versus Guilt**
- **Stage 4 ------5 to 12 years old**
- **Industry versus Inferiority**

State/Stage Age Developmental Crisis Successful Dealing with Crisis Unsuccessful Dealing with Crisis

1. Trust vs. mistrust (0-1) the infant must have basic needs met in a consistent way in order to feel that the world is a trustworthy place.

Birth to 1 year old Trust versus Mistrust Babies learns to trust or mistrust others based on whether or not their needs such as food and comfort are met. If babies" needs are met, they learn to trust people and expect life to be pleasant. If babies" needs are not met, they learn not to trust.

2. Autonomy vs. shame and doubt (1-2) Mobile toddlers have newfound freedom they like to exercise and by being allowed to do so, they learn some basic independence.

1 to 3 years old Autonomy versus Shame and Doubt Toddlers realize that they can direct their own behavior. If toddlers are successful in directing their own behavior, they learn to be independent if toddlers" attempts at being independent are blocked, they learn self-doubt and shame for being unsuccessful.

3. Initiative vs. Guilt (3-5) Preschoolers like to initiate activities and emphasize doing things ―all by myself.‖

4 to 5 years old Initiative versus Guilt Preschoolers are challenged to control their own behavior, such as controlling their exuberance when they are in a restaurant. If preschoolers succeed in taking responsibility, they feel capable and develop initiative if preschoolers fail in taking responsibility; they feel irresponsible, anxious and guilty.

4. Industry vs. inferiority (6-11) School aged children focus on accomplishments and begin making comparisons between themselves and their classmates.

5 to 12 years old Industry versus Inferiority When children succeed in learning new skills and obtaining new knowledge, they develop a sense of industry, a feeling of industry, a feeling of competence arising from their work and effort. When children succeed at learning new skills, they develop a sense of industry, a feeling of competence and self-esteem arising from their work and effort. If children fail to develop new abilities, they feel incompetent, inadequate, and inferior.

Topic: 43- Stages of Erik Erikson's Psychosocial Theory-2: -

- **Stage 5 ------ Adolescence**
- **Identity versus Role Confusion**
- **Stage 6 ------ Early Adulthood**
- **Intimacy versus Isolation**
- **Stage 7 ------ Middle Adulthood**
- **Generativity versus Stagnation**
- **Stage 8 ------ Late adulthood**
- **Ego Integrity versus Despair**

5. Identity vs. role confusion (Adolescence) Teenagers are trying to gain a sense of identity as they experiment with various roles, beliefs, and ideas.

Adolescence Identity versus Role Adolescents who succeed in defining Adolescents who fail to define their Confusion Adolescents are faced with deciding who or what they want to be in terms of occupation, beliefs, attitudes, and behavior patterns who they are and find a role for themselves develop a strong sense of identity. Identity become confused and withdraws, or wants to inconspicuously blend in the crowd

6. Intimacy vs. Isolation (Young adulthood)

In our 20s and 30s we are making some of our first long-term commitments in intimate relationships.

Early Adulthood Intimacy versus Isolation The task facing those in early adulthood is to be able to share who they are with another person in a close, committed relationship. People who succeed in this task will have intimate relationships. Adults who fail at this task will be isolated from other people and may suffer from loneliness.

7. Generativity vs. stagnation (Middle adulthood)

The 40s through the early 60s we focus on being productive at work and home and are motivated by wanting to feel that we've made a contribution to society.

Middle Adulthood Generativity versus Stagnation The challenge is to be creative, productive, and Adults who succeed in this challenge will be creative, productive, and nurturing, thereby Adults who fail will be passive, and self-centered, feel that they have done nothing for the next generation, and nurturing of the next generation Benefiting themselves, their family, community, country, and future generations. Feel that the world is no better off for their being alive.

8. Integrity vs. Despair (late adulthood)

We look back on our lives and hope to like what we see-that we have lived well and have a sense of integrity because we lived according to our beliefs.

Late Adulthood Ego Integrity versus Despair The issue is whether a person will reach wisdom, spiritual tranquility, sense of wholeness, and acceptance of his or her life. Elderly people who

succeed in addressing this issue will enjoy life and not fear death. Elderly people who fail will feel that their life is empty and will fear death.

Source: Psychology by Saundra. K. Ciccarelli & Glenn E. Meyer (Pearson Education)

Topic: 44- Summary of Erik Erikson's Psychosocial Theory: -

These eight stages form a foundation for discussions on emotional and social development during the life span. Keep in mind, however, that these stages or crises can occur more than once. For instance, a person may struggle with a lack of trust beyond infancy under certain circumstances. Erikson's theory has been criticized for focusing so heavily on stages and assuming that the completion of one stage is prerequisite for the next crisis of development. His theory also focuses on the social expectations that are found in certain cultures, but not in all. For instance, the idea that adolescence is a time of searching for identity might translate well in the middle-class culture of the United States, but not as well in cultures where the transition into adulthood coincides with puberty through rites of passage and where adult roles offer fewer choices.

Lecture: 14

(Topics: 45-48)

Topic: 45- Behaviorism: -

- **Stimulus response**
- **Association**
- **Intensity of event**

While Freud and Erikson looked at what was going on in the mind, behaviorism rejected any reference to mind and viewed overt and observable behavior as the proper subject matter of psychology. Through the scientific study of behavior, it was hoped that laws of learning could be derived that would promote the prediction and control of behavior.

The trait and psychodynamic approaches have focused on the ―inner‖ person whereas the behavior or learning approaches to personality focus on the ―outer‖ person. According to learning theorists personality is the sum of learned responses to the external environment. Learning theorists' view that personality is the best understood by taking account of the person's environment. In the early 1940s, Dellard and Miller developed a scientific theory and emphasized the role of learning. The main tenets of this theory are observable behaviors and processes. All of us possess certain innate needs like food, water, oxygen etc which have to be fulfilled. These needs are inherited but the way to fulfill these needs people learn to respond. The researchers remarked that any response that reduces our need is reinforced and that response is repeated to strengthen by fulfilling need in future. Thus, they learn to elicit responses to different needs.

B. F. Skinner, the learning theorist, viewed that personality is a collection of learned behavior patterns. He did certain experiments on animals and gave an idea about how personality functions.

Dollard and Miller analyzed the internal processes such as; motivation drives, etc., whereas Skinner emphasized upon observable behavior only. Skinner is less interested in behavior across situations than in ways of modifying behavior. Skinner discussed two important concepts such as: generalization and discrimination. People learn to elicit similar responses in similar situations and learn to discriminate among responses.

Behavior theories involve two types of conditioning: (i) Classical conditioning and (ii) operant conditioning. Classical conditioning was developed by Ivan Pavlov. It is learning a connection between two stimuli, a neutral or conditioned stimulus and unconditioned stimulus. For example, if a child is ill, he associates his illness with the doctor from whom he may receive medicine. In operant conditioning, B.F Skinner suggests a kind of learning in which a person learns to associate his behavior with the consequences of his own behavior. For example, a child learns to respond to the answer of a question in a similar manner, in which the answer has been rewarded earlier.

Social learning theory was developed by Albert Bandura and Walter Mischel. These theories of behavior emphasize the role of cognitive processes.

According to Skinner internal cognitive processes such as thinking or feelings are not very important to behaviors. But social learning theories emphasize cognitive interpretation as being important in shaping personalities. Social learning theory holds that children learn by observing and imitating models.

Bandura theory is based on three components: (i) the behavior of a person, (ii) the environment in which one interacts or behaves with others and (iii) to understand that particular behaviors would achieve the goal. These three factors help in interaction in shaping behaviors. People are able to assess various situations on the basis of their experience and also their capabilities to deal with various situations. The behavioral and social learning theories emphasized upon social factors which play an important role in developing and changing personalities. These theories also indicate as to why certain behaviors continue and same behaviors may change from situation to situation.

Skinner theory neglects the importance of hereditary factors. It does not take into account the internal forces. But learning theory believed that events have cognitive analysis dimensions. The behaviorist theorists were interested in modifications of behaviors. They emphasized that the interaction between cognitive factors and environmental factors result in modification of behavior. Through conditioning the organism's responses to a great variety of stimulus situations can be changed.

Topic: 46- Ivan Pavlov theory-1: -

- **Unconditioned stimulus**   unconditioned means natural stimulus by which natural response is produced
- **Unconditioned response**   condition means stimulus generated by itself to make the response
- **Conditioned stimulus**
- **Unconditioned response**
- **Dog's experiment**

Ivan Pavlov (1880-1937) was a Russian physiologist interested in studying digestion. As he recorded the amount of salivation his laboratory dogs produced as they ate, he noticed that they actually began to salivate before the food arrived as the researcher walked down the hall and toward the cage. This, he thought, ‒is not natural!‖ One would expect a dog to automatically salivate when food hits their palate, but BEFORE the food comes? Of course, what had happened was . . . you tell me. That's right! The dogs knew that the food was coming because they had learned to associate the footsteps with the food. The key word here is ―learned‖. A learned response is called a ‒conditioned‖ response.

Pavlov began to experiment with this concept of classical conditioning. He began to ring a bell, for instance, prior to introducing the food. Sure enough, after making this connection several times, the dogs could be made to salivate to the sound of a bell. Once the bell had become an event to which the dogs had learned to salivate, it was called a conditioned stimulus. The act of salivating to a bell was a response that had also been learned, now termed in Pavlov's jargon, a conditioned response. Notice that the response, salivation, is the same whether it is conditioned or unconditioned (unlearned or natural). What changed is the stimulus to which the dog salivates. One is natural (unconditioned) and one is learned (conditioned). Let's think about how classical conditioning is used on us. One of the most widespread applications of classical conditioning principles was brought to us by the psychologist, John B. Watson.

In Pavlov's classic experiment with dogs, the neutral signal was the sound of a tone and the naturally occurring reflex was salivating in response to food. By associating the neutral stimulus with the environmental stimulus (food), the sound of the tone alone could produce the salivation response. How Classical Conditioning Works In order to understand more about how classical conditioning works, it is important to become familiar with the basic principles of the process. Classical conditioning involves forming an association between two stimuli resulting in a learned response. There are three basic phases of this process. Phase 1: Before conditioning the first part of the classical conditioning process requires a naturally occurring stimulus that will automatically elicit a response. Salivating in response to the smell of food is a good example of a naturally occurring stimulus. During this phase of the processes, the unconditioned stimulus (UCS) results in an unconditioned response (UCR). For example, presenting food (the UCS) naturally and automatically triggers a salivation response (the UCR). At this point, there is also a neutral stimulus that produces no effect—yet. It isn't until this neutral stimulus is paired with the UCS that it will come to evoke a response. Let's take a closer look at the two critical components of this phase of classical conditioning: The unconditioned stimulus is one that unconditionally, naturally, and automatically triggers a response. For example, when you smell one of your favorite foods, you may immediately feel very hungry. In this example, the smell of the food is the unconditioned stimulus. The unconditioned response is the unlearned response that occurs naturally in response to the unconditioned stimulus. In our example, the feeling of hunger in response to the smell of food is the unconditioned response. In the before conditioning phase, an unconditioned stimulus is paired with an unconditioned response. A neutral stimulus is then introduced. Phase 2: During Conditioning During the second phase of the classical conditioning process, the previously neutral stimulus is

repeatedly paired with the unconditioned stimulus. As a result of this pairing, an association between the previously neutral stimulus and the UCS is formed. At this point, the once neutral stimulus becomes known as the conditioned stimulus (CS). The subject has now been conditioned to respond to this stimulus. The conditioned stimulus is a previously neutral stimulus that, after becoming associated with the unconditioned.

Topic: 47- Ivan Pavlov theory-2: -

- **Generalization**
- **Extinction**
- **Spontaneous recovery**
- **Discrimination**

Behaviorists have described a number of different phenomena associated with classical conditioning. Some of these elements involve the initial establishment of the response while others describe the disappearance of a response. These elements are important in understanding the classical conditioning process. Let's take a closer look at five key principles of classical conditioning. A) Acquisition is the initial stage of learning when a response is first established and gradually strengthened.5 during the acquisition phase of classical conditioning, a neutral stimulus is repeatedly paired with an unconditioned stimulus. As you may recall, an unconditioned stimulus is something that naturally and automatically triggers a response without any learning. After an association is made, the subject will begin to emit a behavior in response to the previously neutral stimulus, which is now known as a conditioned stimulus. It is at this point that we can say that the response has been acquired.

For example, imagine that you are conditioning a dog to salivate in response to the sound of a bell. You repeatedly pair the presentation of food with the sound of the bell. You can say the response has been acquired as soon as the dog begins to salivate in response to the bell tone. Once the response has been established, you can gradually reinforce the salivation response to make sure the behavior is well learned. B) Extinction is when the occurrences of a conditioned response decrease or disappear. In classical conditioning, this happens when a conditioned stimulus is no longer paired with an unconditioned stimulus. For example, if the smell of food (the unconditioned stimulus) had been paired with the sound of a whistle (the conditioned stimulus) then it would eventually come to evoke the conditioned response of hunger. However, if the unconditioned stimulus (the smell of food) were no longer paired with the conditioned stimulus (the whistle) then eventually the conditioned response (hunger) would disappear. C) Spontaneous Recovery sometimes a learned response can suddenly reemerge even after a period of extinction. Spontaneous recovery is the reappearance of the conditioned response after a rest period or period of lessened response. For example, imagine that after training a dog to salivate to the sound of a bell, you stop reinforcing the behavior and the response eventually becomes extinct. After a rest period during which the conditioned stimulus is not presented, you suddenly ring the bell and the animal spontaneously recovers the previously learned response. If the conditioned stimulus and unconditioned stimulus are no longer associated, extinction will occur very rapidly after a spontaneous recovery. D) Stimulus Generalization Stimulus generalization is the tendency for the conditioned stimulus to evoke similar

responses after the response has been conditioned. For example, if a dog has been conditioned to salivate at the sound of a bell, the animal may also exhibit the same response to stimuli that are similar to the conditioned stimulus. In John B. Watson's famous Little Albert Experiment, for example, a small child was conditioned to fear a white rat. The child demonstrated stimulus generalization by also exhibiting fear in response to other fuzzy white objects including stuffed toys and Watson's own hair.

Topic: 48- Application of Pavlov's theory in real life: -

- **In a classroom setting**
- **In a real life context**
- **Behavior management**
- **Habit formation**

In reality, people do not respond exactly like Pavlov's dogs. There are, however, numerous real-world applications for classical conditioning. For example, many dog trainers use classical conditioning techniques to help people train their pets.

These techniques are also useful for helping people cope with phobias or anxiety problems. Therapists might, for example, repeatedly pair something that provokes anxiety with relaxation techniques in order to create an association. Teachers are able to apply classical conditioning in the class by creating a positive classroom environment to help students overcome anxiety or fear. Pairing an anxiety-provoking situation, such as performing in front of a group, with pleasant surroundings helps the student learn new associations. Instead of feeling anxious and tense in these situations, the child will learn to stay relaxed and calm.

Lecture: 15

(Topics: 49-50)

Topic: 49- John Watson theory: -

- **Albert experiment**
- **Association with events**
- **Phobias can be induced**
- **Phobias can be removed**

John B. Watson

Behaviorism school of thought

John B. Watson (1878-1958) believed that most of our fears and other emotional responses are classically conditioned. He had gained a good deal of popularity in the 1920s with his expert advice on parenting offered to the public. He tried to demonstrate the power of classical conditioning with his famous experiment with an 18 month old boy named ‒Little Albert‖. Watson sat Albert down and introduced a variety of seemingly scary objects to him: a burning piece of newspaper, a white rat, etc. But Albert remained curious and reached for all of these things. Watson knew that one of

our only inborn fears is the fear of loud noises so he proceeded to make a loud noise each time he introduced one of Albert's favorites, a white rat. After hearing the loud noise several times paired with the rat, Albert soon came to fear the rat and began to cry when it was introduced. Watson filmed this experiment for posterity and used it to demonstrate that he could help parents achieve any outcomes they desired, if they would only follow his advice. Watson wrote columns in newspapers and in magazines and gained a lot of popularity among parents eager to apply science to household order.

Operant conditioning, on the other hand, looks at the way the consequences of a behavior increase or decrease the likelihood of a behavior occurring again. So let's look at this a bit more.

Topic: 50- Application of Watsons' theory in real life: -

- **Create a caring relationship.**
- **Display unconditional acceptance.**
- **Apply a holistic treatment approach which includes treating the mind, soul, and spirit as well as the body.**
- **Take time to have uninterrupted moments with the patients –Watson refers to this as "caring moments."**

Application of Watsons' theory in real life is very beneficial. He discussed feelings and emotions. He did experiments on a child, induced fear and reduced fear from the child's mind. These applications can be applied in real life. If we create a caring relationship (Like Love and affection) with anyone then the respective person feels comfortable with you and you will also receive a good reply and vice versa. We need to just reflect our love and affection not only with words but also with consistent actions. Display unconditional acceptance like interaction of children with parents and teachers in a positive way. Apply a holistic treatment approach which includes treating the mind, soul, and spirit as well as the body. Take time to have uninterrupted moments with the patients –Watson refers to this as ―caring moments.‖ Obedience should not be linked with fear.

Lecture: 16

(Topics 51-53)

Topic: 51- B.F. Skinner and Operant Conditioning theory

o Operant conditioning, in which the consequences of behavior lead to changes in the probability that the behavior will occur, is at the heart of B.F. Skinner's (1938) behaviorism.
o According to Skinner, the behavior of all animals and humans is guided by its consequences (rewards or punishments).
o **Experiment with pigeon**
  The Skinner box experiment, also known as operant conditioning, was conducted by the psychologist B.F. Skinner to study the effects of rewards and punishments on the behavior of animals, particularly pigeon. Skinner designed a controlled environment called a " " or an "operant chamber" in which he could observe and manipulate the behavior of the subjects.

In the Skinner box, pigeon was placed inside a small chamber that contained a lever or a button he could press, as well as a food dispenser and other equipment. The chamber was soundproof and had various sensors to monitor the pigeon's behavior. Skinner's experiment involved training the pigeon to perform a specific action, such as pressing the lever, in order to receive a reward, typically food. Initially, the pigeon would explore the chamber randomly, and by chance, he would press the lever, resulting in the delivery of food. Over time, Skinner observed that the pigeon began to associate the action of pressing the lever with receiving food and started to press the lever more frequently.

Skinner then introduced a system of reinforcement schedules to examine how different patterns of rewards and punishments influenced the pigeon's behavior. For example, he implemented a continuous reinforcement schedule in which the pigeon received food every time he pressed the lever. He also implemented intermittent reinforcement schedules, where the pigeon received food only after pressing the lever a certain number of times or at random intervals. Skinner discovered that intermittent reinforcement schedules were particularly effective in maintaining the pigeon's behavior, as he continued pressing the lever persistently, even when the rewards were infrequent. This phenomenon is known as the "partial reinforcement effect."

The Skinner Box experiment with pigeon demonstrated the principles of operant conditioning, emphasizing the role of consequences (rewards and punishments) in shaping and maintaining behavior. Skinner's work extended beyond pigeon and had significant implications for understanding human behavior and the development of behavior modification techniques in various fields.

Skinner recommended that language is also gained in the same manner as other behavior, through operant conditioning. In operant conditioning, learning is characterized as changes in behavior as a result of interaction that happens after a response. Skinner said that operant conditioning happens in language development when sounds are made by a youngster and afterward reinforced by their guardian's responses. Result of this reinforcement may be an energized smile. This makes the kid more prone to repeat the word and associate it with an object or occasion. This operant conditioning consolidates with imitation to permit quick language development to happen.

o **Shaping:** Shaping is the process of developing behavior through step-by-step process. Behavior can be shaped by using the following psychological processes:
  - **Imitation:** Imitation can be defined as the copying of behavior. It plays a key crucial role in improving the children behavior and allows them to learn new things quickly and efficiently by watching those around us.
  - **Chaining:** Required behavior is broken down into small steps for its effective learning.
  - **Reinforcement:** Reinforcement helps to shape the behavior. It involves the use of providing something or taking it away to achieve a desired behavior.

Topic: 52- Schedule of Reinforcement

Reinforcement is a procedure of associating pleasant or unpleasant experiences objects or events with the responses, made by the learner. The basic idea of reinforcing a response is either to strengthen a response or to weaken it. Appreciation and rewards help in the strengthening of certain behavior in the child. Punishment and reproof help in the elimination of undesirable behaviors in children. Thus, reinforcement can be positive such as appreciation and rewards, and negative such as reproof and punishment. The idea of providing reinforcement in learning was first popularized by Edward Thorndike and later by B.F. Skinner. Reinforcement plays a significant part in learning and therefore, the teacher should make use of this technique in the learning process.

- Operant conditioning is the idea that actions are reinforced.
- There are two types of reinforcements that are vital to this theory: **positive reinforcement** (This involves adding something to increase response, such as giving a piece of candy to a child after they clean their room) and **negative reinforcement** (This involves removing something to increase response, such as canceling a quiz if students turn in all of their homework for the week. By removing the aversive stimulus (the quiz), the teacher hopes to increase the desired behavior (completing all homework). Negative reinforcement should not be confused with punishment.

Types of Schedules of Reinforcement

- **Fixed Schedule:** It occurs when the response is rewarded after a specified amount of time.
- **Variable Schedule:** It occurs when response is rewarded after an unpredictable number of responses or an unpredictable amount of time.
- **Ratio Schedule:** It involves reinforcement after a certain number of responses have been emitted.
- **Interval Schedule:** It involves reinforcement of a target behavior after an interval of time has passed.

Topic: 53- Strengths of Skinner's theory

Following are the strengths of the Skinner's theory:

- Operant conditioning explains a wide range of phenomena, such as learning language and phobias.
- Operant conditioning has practical advantages, specifically in the area of education.
- When a person is rewarded for a behavior, it is more likely for it to occur again.
- People are more aware of how to control behavior which has become very important in parenting techniques.
- This theory is very helpful when raising children, and when teaching them.
- A child that has been punished after acting a certain way will less be likely to model that behavior again.
- Very helpful way to control students' behavior.
- Indicates the importance of scientific research.

Lecture: 17

(Topics 54-56)

Topic: 54- Social Learning Theory Albert Bandura

- Social learning theory considers how both environmental and cognitive factors interact to influence human learning and behavior.
- Observational learning
- Imitation
- Reinforcement of consequences
- Cognitively selection of behavior to imitate

Albert Bandura (1925) is a leading contributor to social learning theory. He calls our attention to the ways in which many of our actions are not learned through conditioning; rather, they are learned by watching others (1977). Young children frequently learn behaviors through imitation. Sometimes, particularly when we do not know what else to do, we learn by modeling or copying the behavior of others. A kindergartner on his or her first day of school might eagerly look at how others are acting and try to act the same way to fit in more quickly. Adolescents struggling with their identity rely heavily on their peers to act as role-models. Sometimes we do things because we've seen it pay off for someone else. They were operant conditioned, but we engage in the behavior because we hope it will pay off for us as well. This is referred to as vicarious reinforcement (Bandura, Ross and Ross, 1963).

Bandura (1986) suggests that there is interplay between the environment and the individual. We are not just the product of our surroundings, rather we influence our surroundings. Parents not only influence their child's environment, perhaps intentionally through the use of reinforcement, etc., but children influence parents as well. Parents may respond differently with their first child than with their fourth. Perhaps they try to be the perfect parents with their firstborn, but by the time their last child comes along they have very different expectations both of themselves and their child. Our environment creates us and we create our environment.

Topic: 55- Bandura and the Bobo Doll Experiment & Today's Children and the Media

- Bandura (1961) conducted a controlled experiment study to investigate if social behaviors (i.e., aggression) can be acquired by observation and imitation.
- On TV, 24 children a male or female model behaving aggressively towards a toy called a ―Bobo doll‖. The adults attacked the Bobo doll in a distinctive manner – they used a hammer in some cases, and in others threw the doll in the air and shouted too.
- The result of the experiment found that those children who observed the aggressive behavior on TV, they also learnt aggression than those children who did not watch it.
- Bobo doll experiment demonstrated that children are able to learn social behavior such as aggression through the process of observation learning, through watching the behavior of another person.
- This classic example of laboratory experiment lends support to the idea that exposure to

violence at home or in the media can increase aggressive and possibly violent behavior in real life.

Topic: 56- Main Points to Note About Behaviorism

Following are the main point about Behaviorism:

- Stimulus Response
- Association
- Reinforcement
- Immediate Feedback
- Reward and Punishment
- Habit formation
- Removal of Phobia

Lecture: 18

(Topics 57-60)

Topic: 57- Jean Piaget's Theory of Cognitive Development

- Jean Piaget (1896-1980) is one of the most influential cognitive theorists. Piaget was inspired to explore children's ability to think and reason by watching his own children's development. He was one of the first to recognize and map out the ways in which children's thought differs from that of adults. He believed that children's intellectual skills change over time through maturation. Children of differing ages interpret the world differently.
- Piaget felt that development is largely fueled from within.
- Children's minds were not merely smaller versions of adult minds.
- Children construct an understanding of the world around them, experience discrepancies between what they already know and what they discover in their environment, then adjust their ideas accordingly.

Topic: 58- Jean Piaget's Theory of Cognitive Development

Piaget felt that development is largely fueled from within. He worked out his four stages on the basis of the following key concepts:

- **Schemas:** Mental image produced in response to a stimulus that becomes a framework or basis for analyzing or responding to other related stimuli is known as schemas.
- **Assimilation:** Assimilation is the process of using or transforming the environment so that it can be placed in preexisting cognitive structures.
- **Accommodation:** Accommodation is the process of changing cognitive structures in order to accept something from the environment. It changes the schema, so it can increase its efficiency.
- **Equilibrium:** According to Piaget, the developmental ideal is a balance between assimilation and accommodation, which is known as equilibrium.

Topic: 59- Stages of Piaget's theory

Piaget believed that child's cognitive development progresses through four stages which involve sensory-motor, preoperational, concrete operational, and formal operational periods. These stages

are treated as fixed and universal and represent a general sequence which is observable in all types of cognitive change. Piaget argued that children's thinking and the ways through which they make sense of their experiences (schemes) change with age. The infancy period is marked by sensory-motor action patterns during which a child acts on the objects around him/her to form schemes. Soon, he/she begins to form mental images which help to transform thinking and experiences into meaningful, manageable and memorable patterns. This transformation in thinking is supported by two critical processes including adaptation and organization. Adaptation involves the process of developing schemes by directly working upon the environment through assimilation or accommodation. However, if the balance between these two is disturbed, it causes a cognitive conflict or disequilibrium within the minds of children. It is important to resolve the conflict through either assimilation or accommodation to bring the mind back to the equilibrium state. These resulted in developing more effective schemes that help the child to advance his/her thinking.

Learning Through Stages:

1. Sensory Motor Stage-0-2 year
2. Preoperational Stage-2-7 year
3. Concrete Operational Stage-7-11 year
4. Formal Operational Stage-11 year and up

Piaget's four stages of cognitive development are described as under:

1. **The sensory-motor stage:** The sensorimotor stage is characterized by the first two years of life during which infants think through their five senses. At the beginning of this stage, the sensory reflexes of the child serve to make up for his/her intelligence. The child engages in circular reactions (repeating chance behaviors) which help him/her to adapt to his/her surroundings. Later, the child deliberately employs intentional or goal directed behaviors by coordinating different schemes to solve simple problems. Object permanence (the ability to understand that objects exist even when they are not seen) emerges towards the end of this period which helps to set the stage for mental representations and engage s the child in make-believe play.

2. **The preoperational stage**: As children grow, they enter in the preoperational stage (2 to 7 years) which characterizes their immense representational or symbolic capacities. Children make advancements in their mental representations as they develop more effective schemes. For example, as they get past the first two years of their life, their make-believe play gets more sophisticated. This cognitive change is seen when a child older than 2 years of age pretends to use an object (cup) in different ways, for example, using it to drink water as well as using it as a hat. Similarly, children's drawings get more mature, realistic and detailed during the preschool years. However, their expanding cognitive capacities are limited by their inability to take into account someone else's perspective, referred to as egocentrism. iii. The concrete operational stage.

3. **The concrete operational stage** extends from 7 to 11 years. As the children enter the middle childhood, they accomplish a number of cognitive advancements. For example, children at this stage perform mental operations that follow logical rules. They are capable of thinking in more than one direction and are capable to see a problem from different angles (decantation). Consequently, they understand that certain characteristics remain the same even if they change the outward appearance (conservation). Their understanding of space is

more precise when compared with the preschool children. They are capable of developing logical hierarchies and classification systems and can perform reversible actions which demonstrate that the children have now developed logical, flexible and organized schemes than before.

4. **The formal operational stage**: Children develop the capacity for an abstract and systematic thinking around 11 years of age. Piaget referred to this stage as formal operational stage. While the children can perform operations with the real objects at the concrete operational stage, they are now ready to perform mental, abstract operations without any concrete things or events. The main features of this stage include hypothetical -deductive reasoning and propositional thought. These abilities refer to the children's capacity to form and evaluate logical propositions without referring to the real-world circumstances and systematically reaching a conclusion. Accompanying this stage, comes the individual's desire to get noticed, often referred to as adolescent egocentrism. This is a heightened self-consciousness phase in which the growing adolescents tend to believe that others are interested in them in the same way as they are themselves. This state causes irresponsible and uncontrolled behaviors often leading to suicide attempts, negative thoughts, and drug use etc.

Topic: 60- Criticism on Piaget's theory

Following criticism was made on Piaget's theory:

- Learning through stages.
- Environmental part neglected.
- Piaget underestimated the ages at which children could master various cognitive tasks.
- The theory also seems to suggest that intellectual development is largely complete by the age of 12. More recent research demonstrates that the teen and early adult years are a period of important cognitive development as well.

Lecture: 19

(Topics 61-65)

Topic: 61- Lev Vygotsky's Sociocultural Theory

- Vygotsky's sociocultural theory of human learning describes learning as a social process and the origination of human intelligence in society or culture.
- The major theme of Vygotsky's theoretical framework is that social interaction plays a fundamental role in the development of cognition.
- Learning through environment.
- Meaning making.
- Socialization patterns.
- Children acquire their cultural values, beliefs, and problem-solving strategies through collaborative dialogues with more knowledgeable members of society.

Topic: 62- Lev Vygotsky's Sociocultural Theory: Zone of proximal development and scaffolding

Vygotsky created the concept of the zone of proximal development and scaffolding and which came to be a central part of his theory.

- **Zone of proximal development (ZPD)**: Proximal means those skills that child is close to mastering. ZPD is an important concept that relates to the difference between what a child can achieve independently and what a child can achieve with guidance and encouragement from a skilled partner. Skills are too difficult for a child to master on his own, but that can be done with the guidance of knowledgeable person

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  task. When the child learns to complete the task independently, then given help or assistance is removed gradually. This gradual removal of help is scaffolding.

Topic: 63- Comparing Piaget and Vygotsky

Vygotsky	**Piaget**
• Given the concept of zone of proximal development	• Given the sages of cognitive development
• Cognition through environment and culture	• Cognition within
• Learning through observation and modelling	• Learning through experiencing everything on their own
• Language through social interaction	• Language through stages

Topic: 64- Humanistic theories

- A group of psychologists founded the association of Humanistic Psychology in the year 1962. They developed the theories, called as Humanistic theories, which gave importance to the growth potential of human beings. Humanistic approaches discussed about people's inner goodness and their tendency to grow to higher levels of functioning.
- The humanistic perspective was founded by Abraham Maslow as well as Carl Rogers.
- This perspective gives more value to human beings.
- The humanistic perspective is a way of evaluating an individual as a whole, rather than looking at them only through a smaller aspect of their person.
- Humanistic perspective begins with the existential assumptions that people have free will and are motivated to achieve their potential and self-actualize.
- This perspective considers the needs, interest and aptitude of children.
- Humanistic perspective considers the basic human needs of an individual and how important they really are to the overall happiness of that person.
- The humanistic perspective considers physiological, safety, belongingness, esteem, and self-actualization needs.
- This perspective is based on the hierarchy of needs by Abraham Maslow.

Topic: 65

Maslow's hierarchy of needs is a theory of psychology explaining human motivation based on the pursuit of different levels of needs. The theory states that humans are motivated to fulfill their needs in a hierarchical order. This order begins with the most basic needs before moving on to more advanced needs. The ultimate goal, according to this theory, is to reach the fifth level of the hierarchy: self-actualization.

Levels of Hierarchy

There are five main levels to Maslow's hierarchy of needs. These levels begin from the most basic needs to the most advanced needs. Maslow originally believed that a person needed to completely satisfy one level to begin pursuing further levels.

1: Physiological Needs

Physiological needs are the lowest level of Maslow's hierarchy of needs. They are the most essential things a person needs to survive. They include the need for shelter, water, food, warmth, rest, and health. A person's motivation at this level derives from their instinct to survive.

2: Safety Needs

The second level of Maslow's hierarchy of needs consists of safety needs. Safety, or security needs, relate to a person's need to feel safe and secure in their life and surroundings. Motivation comes from the need for law, order, and protection from unpredictable and dangerous conditions.

There are many examples of safety needs in modern society. To find stability and security, a person must consider their physical safety. This means seeking protection from the elements, violent conditions, or health threats and sickness. Additionally, an individual needs economic safety to live and thrive in modern societies. This refers to the need for job security, stable income, and savings. One method of achieving economic safety is to learn proper investment strategies.

3: Love and Belonging Needs

The third level of Maslow's hierarchy of needs is love and belonging needs. Humans are social creatures that crave interaction with others. This level of the hierarchy outlines the need for friendship, intimacy, family, and love. Humans have the need to give and receive love, to feel like they belong in a group. When deprived of these needs, individuals may experience loneliness or depression.

4: Esteem Needs

The fourth level of Maslow's hierarchy of needs is esteem needs. Esteem needs are related to a person's need to gain recognition, status, and feel respected. Once someone has fulfilled their love and belonging needs, they seek to fulfill their esteem needs.

Maslow broke up esteem needs into two categories: the need for respect from others and the need for respect from oneself. Respect from others relates to achieving fame, prestige, and recognition. Respect from oneself relates to dignity, confidence, competence, independence, and freedom.

5: Self-Actualization Needs

The fifth and final level of Maslow's hierarchy of needs is self-actualization needs. Self-actualization relates to the realization of an individual's full potential. At this level, people strive to become the best that they possibly can be.

Lecture: 20

(Topics 66-71)

Topic: 66- Moral Development

Overview:

Moral development has a significant role in shaping the personality of a child. In order to know the student, teacher must have the knowledge of various patterns of morality which appear at different phases of child's development. Moral development like other aspects of development occurs along with the social, emotional and cognitive aspects of development.

Moral Development:

- Moral development relates to an individual's sense of right and wrong. It focuses on the beginning, understanding and change of morality from infancy through old age.
- What do we mean by morality? According to one definition, morality refers to —a set of principles or ideals that help the individual to distinguish right from wrong and to act on this distinction‖ (Shaffer, 1993).
- Morality principles guide how people should treat one another, with respect to justice, others' rights and welfare.

Moral development includes:

Learning the difference between right and wrong;

To use this knowledge to reach at proper decisions in complex choices; and

Possessing strength and freedom to act according to the right decision

It can be referred to do the right thing even in difficult situations.

Morality is shaped by several factors like children's experiences of interaction with family, friends, and other adults. Some other factors as their physical growth, cognitive, emotional and social skills combine to influence moral development.

Topic: 67- Moral Component

There are three moral components according to Shaffer (1993):

- First **Cognitive component** relates to the thinking about moral issues and making decisions

about right and wrong.
- Second **Emotional component** is linked to the feelings associated with moral thoughts and decisions. These feelings include guilt, shame and pride.
- Third is **Behavioral component**: This is concerned with the ways we behave (act) and includes the limit to which we steal, lie, cheat and behave nobly.

Topic: 68- Factors Affecting Moral Development

There are various factors which affect moral development of an individual. Let's have a look:

i. Family

Family plays an important role in a child's moral development. Parents show acceptance or rejection of child's actions. And set the meanings of right and wrong for the child. The actions which are approved by the parents are viewed as good and those rejected by them are viewed as bad. This makes his first orientation to morality.

ii. School

School, too, has important part in making moral concepts. The child gets influenced by the concepts of the good and the bad as a result of his relationship with his classmates, teachers and senior students.

Children take many actions which they see their seniors doing in the school. Most of what has been learnt at home from parents and family is rejected. School can play a positive role by providing special teaching and training for moral development.

iii. Peer Group

Friends and play mates affect child's perception of good and bad. Child accepts the ideas of his companions.

iv. Society and Culture

The common social environment also affects the moral development of the individual. Due to the fact, the moral behavior of individuals from cultured societies is distinctly changed from that of individuals belonging to uncivilized societies.

v. Age

Age is an important source in making moral concepts and moral behaviors. As the individual develops from infancy to adolescence, he becomes more open-minded towards certain those ideals which sometimes do not fit with what he thinks to be good. In later adolescence he approves many things which he had earlier rejected.

vi. Gender

Another important factor in moral development is gender. Girls are held with the sense of guilt and shame if their behavior does not match with the accepted moral code. They try to be less critical of the moral tone set by their elders. Boys, on the other hand, are more aggressive than the girls. Often, they set their own standards of moral behavior and put effort to follow them.

To conclude we can say that moral development is a complicated process in which an individual's interaction with people and objects in his surrounding, play an important role.

Topic: 69- Importance of Moral Development

- Society cannot work in a proper way in the absence of ethical and moral principles on what is right and what is wrong. Moral education starts from early childhood and continues during childhood and adolescence.
- Impact of moral development will be reflected through individual's personality, behavior and attitudes.
- The quality of inter personal relations depends on the quality of manners and behaviors people act upon.
- Starting from individual level, morality spreads out to society and is an important element for peace and unity. Thus, teaching positive values such as honesty, courage, responsibility, compassion, integrity, self-discipline, self-reliance, kindness, friendliness, tolerance, respect, love, justice and mercy becomes essential.

Topic: 70- Theories of Moral Development

Psychologists have studied morality in various ways. In the following section we will present an introduction of the two major theories related to moral development.

Jean Piaget's Theory:

Jean Piaget (1896–1980) focused specially on the moral lives of children. He studied the way children play games in order to learn about children's beliefs about right and wrong. He watched children play marbles to learn how they used and thought about the rules of the game. He also asked children questions about moral issues like: theft; lies; punishment; justice.

Through his studies, Piaget concluded those children, depending on their developmental maturity, thinking two unique ways about morality. He termed the ways as Heteronymous and Autonomous morality.

Heteronymous Morality

This is the first stage of moral development in Piaget's theory. It arises from 2 to 7 years of age. Here, justice and rules are considered of as unchangeable things of the world which are beyond control of people.

Autonomous Morality

This is exhibited by older children (about 10 years of age and older). The child becomes aware that rules and laws are created by people and that, in judging an action, one should consider the actor's intentions as well as the consequences.

Lawrence Kohlberg's Theory (1927-1987):

Lawrence Kohlberg started as a developmental psychologist and then moved on to the field of moral education. Through his studies, Kohlberg displayed that people developed in their moral reasoning through a series of stages. He believed that there were six identifiable stages of moral reasoning. These stages can be clustered into three levels of complexity. They are:

Level I - Pre-Conventional Reasoning

At this level, the child cannot understand the concept of moral values. Moral reasoning is controlled by external rewards and punishments.

Stage 1: **Punishment and Obedience**

Moral thinking is based on punishment. Children obey because adults tell them to obey.

Whatever is rewarded is good; whatever is punished is bad.

Stage 2: **Individualism and Purpose**

Moral thinking is based on rewards and self-interest. Children obey when they want to obey and when it is in their best interests to obey. What is right is what feels good and what is rewarding.

I'll do something good for you if you do something good for me.

Level 2 - Conventional Reasoning

At this level, internalization is transitional. The child abides by certain standards (internal). However, these are the standards of others (external) such as parents or the laws of society.

Stage 3: **Interpersonal Norms**

Children give importance to trust, caring and faithfulness to others as the basis of moral judgment. At this stage, children often adopt their parents' moral standards. They make efforts to be considered by parents as a‖ good boy‖ or a —good girl. This impression is rewarding for children.

Stage 4: **Social System Morality**

Moral judgments are based on understanding the social order, law, justice and duty. For example, a child might say that it is always wrong to steal because laws that have been developed are for the benefit of society.

Good is defined by laws of society, by doing one's duty. A law should be obeyed even if it is not fair.

Level 3 - Post-Conventional Reasoning

At this level morality is completely internalized (adopted) by the individual and is not based on others' standards. The adolescent identifies alternative moral ways, searches for choices and then decides on personal moral codes.

Stage 5: Community Rights versus Individual Rights

The adolescent understands that values and laws are not absolute but relative. He also knows that standards may differ from one person to another. The person recognizes that laws are important for society but knows that laws can be changed. He believes that some values, such as liberty, are more important than the law. Values and laws are relative and standards may vary from one person to another.

Good is understood in terms of abstract (mental) principles that the society has settled down. An unfair law ought to be changed.

Stage 6: Universal Ethical Principles

At this stage individual has developed a moral standard based on universal human rights. When faced with a conflict between law and conscience, the person will follow conscience, even though the decision might involve personal risks. Good is understood in terms of abstract principles. The emphasis is on human rights without caring for the approval of society.

Kohlberg's theory shows us that moral reasoning is a complex process and the child needs guidance throughout his developmental stages.

In the pre-school age, you will be dealing with children of the first two stages and in the long run the third stage, but it is important for you to understand the whole process of moral development according to the perspective of Lawrence Kohlberg.

Topic: 71- Criticism on Kohlberg's Theory

Following criticism was made on Kohlberg's theory:

- Kohlberg is biased against women.
- Kohlberg's theory has been criticized for emphasizing justice to the exclusion of other values, with the result that it may not adequately address the arguments of those who value other moral aspects of actions.
- Cultural bias problem.
- Children and adults have different morality rules

Lecture: 21

(Topics 72-76)

Topic: 72- Moral Characteristics of Learners

- Preschool years mark child's transition from egocentricity (self -interest) to empathy—or at least the potential for empathy.
- Child becomes increasingly helpful and caring of others when forced to choose between her own self-interest and empathy, a four-year-old will still perhaps choose self-interest.
- Preschoolers tend to think of right and wrong in black and white terms. That is, an act is always right or always wrong. There are no shades of gray and there is no room to negotiate. People are good or people are bad. Good people are always good and bad people are always bad.
- At the age of preschool some more features emerge as:
  - Strict equality
  - Reciprocity (mutuality); merit, deserving

Topic: 73- Characteristics of Learners at Kindergarten

Young children think of right and wrong in following terms:

- **Absolutes:** Things are always good or always bad. It is unimportant whether an act was intentional or unintentional.
- **How much physical damage was done?** Greater the damage worse is perception of the act.
- **Whether an act will evoke punishment:** If an act will be punished then it is wrong.
- **Rules**: Rules should never be broken. Breaking rules is viewed as wrong.
- **Their own perspective:** Children have difficulty taking another person's view of an issue.

Topic: 74- Classroom Activities to Develop Morality

Majority of childhood education experts agree that building a child's character must begin at preschool age. During this period, children can be easily molded and guided to learn about what is right and what is wrong, and to learn to live a value-filled life. They can easily absorb and follow what they see and hear from the adults in their surroundings. Thus, teaching positive values such as honesty, courage, responsibility, sympathy, honesty, self-discipline, self-reliance, kindness, friendliness, tolerance, respect, love, justice and pity will likely be more effective when the youngsters are at preschool age than when they are at adolescent age.

At this level teacher can use the following classroom activities to promote moral development:

1. Telling and Reading Stories:

All children enjoy listening to and reading folk tales, fairy tales, and stories where animals are the main characters. Teachers can select such story books in Urdu or in mother tongue.

2. Learning and Singing Songs:

Most children love learning and singing songs. Adolescents and adults also like songs and singing, especially if they can identify with the music. Through poems and songs moral values can be indorsed.

3. Role-playing a Story:

Majority of children like to wear a particular dress and acting out the roles of different characters. For teaching the value of hard work, truth, and empathy teacher can use role playing in classroom.

Topic: 75- Characteristics of Elementary Learners

- In elementary school child can easily put himself in another person's shoes; can show empathy.
- Children are able to take need as an important reason for kindness.
- Children try to reason things out and increase their moral understanding. They often shout ―it's not fair.
- It should be noted that elementary children will test boundaries as part of their moral development. They are exploring where the line falls. This requires the adults in their world to follow rules which are put in place. Failure to do so results in moral ambiguity which the elementary child quickly picks up on, learning that we don't really mean what we say. Not ideal when these children are forming their sense of morality.

Topic: 76- Classroom activities for Elementary Level

Teacher can help in moral development of students by inculcating moral values through classroom activities. Some of the ideas are presented here; you can innovate your own ways.

Thinking about rules

Objective: To teach children that some rules are inflexible, while other rules can be changed.

Skill: Respect, creating agreement

Ask the group, ―What does it mean to follow rules? What would happen if people didn't follow them?‖ Write down their answers on the board or a large sheet of paper.

Tell them:

Rules tell us how to behave. Some rules should always be followed so that people don't get unhappy or have something bad happen. ―Don't steal,‖ ―Don't cheat,‖ and ―Tell the truth‖ are all rules that should always be followed. In a group like this one, there are certain rules that we follow so that everyone can participate. Some of the rules are: don't disturb others, don't use bad language, and don't say things that will be unkind to others.

If we didn't have these rules, it would be very difficult for us to live together in a society. Other rules are more flexible. If your sleep time is fixed, your mother might change the rule and allow you to stay awake later sometimes. Rules can only be changed only if no one gets hurt.

Ask the children which of the following rules must always be kept and which can be changed sometimes. Also ask them the reasons for their answer.

- Don't hit anyone in anger.
- Eat a balanced meal.
- Keep your room neat.
- Don't talk behind people's backs.
- Listen to the teacher.

Children can offer other rules from home and school, and tell why these rules should always be kept or can sometimes be bent.

Role model

Learning Objective: To identify positive qualities of role models

Skill: Self-awareness

Ask, ―What is a ‗role model'?‖ Brainstorm ideas and write them on the board or a large sheet of paper.

Tell the group:

Role models are people you admire. You may like their values, the way they live their lives, and the things that are important to them. You may want to copy their style.

Most people's role models are famous people—celebrities, sports stars, politicians, and so on. In this activity, try to think of someone you know personally who is really great. It could be a parent, teacher, or friend.

Ask students to talk about their role models. Encourage them by asking these questions:

- What has that person done to become your role model?
- Does your role model help others? How?
- What's the most important quality a role model should have?
- What could you do to be like your role model?

Lecture: 22

(Topics 77-83)

Topic: 77- Personality: Concept and Definition: -

Topic: 78- Characteristics of Personality: -

Topic: 79- Personality Trait Theories-1: -

Topic: 80- Personality Trait Theories-2: -

Topic: 81- Psychodynamic Theories of Personality: -

Topic: 82- Structural personality Topographical aspects of mind-1: -

Topic: 83- Structural personality Topographical aspects of mind-2: -

Topic: 77- Personality: Concept and Definition

- Personality is a controversial concept. People used this in various ways. The term ―personality‖ is derived from the Latin word –Persona‖ this means artificial mask used by actors in those days to indicate their role in theatrical play.
- People usually think that personality means physical attractiveness or reputation etc. So different terms are used to type a person, such as ―he is shy‖, ―he is introvert‖ etc. Thus, everyone has got a personality. This personality includes both outer self and inner self and both of these interact with each other.
- Several attempts have been made by sociologists, philosophers and psychologists to define personality in different ways. All these definitions emphasized on the total person, i.e., his external appearance, his abilities, tendencies, innate and acquired characteristics. Some of these definitions are discussed below:
- Coleman (1960) defined personality as ―the individual‘s unique pattern of traits, the pattern that distinguishes him as an individual and accounts for his unique and relatively consistent way of interacting with his environment‖.
- According to Mischel (1986) personality as ―what usually refers to the distinctive patterns of behavior (including thoughts and emotions) that characterize each individual‘s adaptation to the situations of his or her life‖.
- One of the most appropriate definitions of personality has been given by G.W. Allport. He defined personality ―as the dynamic organization within the individual of those psychophysical systems that determine his unique adjustment to his environment‖.
- Thus, personality is the sum total of physical abilities and mental traits of the individual which are dynamic and they help one to adjust to his environment.

Topic: 78- Characteristics of Personality

Following are the characteristics of personality:

- Personality is unique.
- Personality refers to relatively stable qualities of an individual.
- Personality represents a dynamic orientation of an organism to the environment.
- Personality is greatly influenced by social interaction.

Topic: 79- Personality Trait Theories

Personality theories have been classified into four groups. They are:

1. Trait theories
2. Psychodynamic theories
3. Behavioral theories
4. Humanistic theories

Trait Theories:

- **Trait theories attempt to describe personality as the sum of certain traits.** According to Kimble and Garmezy ‒trait is a stable and enduring attribute of a person which is revealed consistently in different situations.‖ Allport believed that the pattern of these traits is unique in each individual and determines his behaviors. Therefore, traits are consistent personality characteristics and behaviors manifested in different situations.

- Trait theorists assumed that all people possess certain traits, but the degree to which a particular trait applies to a specific person varies and can be quantified. It is necessary for trait theorists are to identify specific primary traits in order to describe personality. For example, if we compare the personalities of two persons, one being **extrovert** and another being **introvert.** The extrovert person would be social, happy go lucky and would make friends easily while the introvert‘s behavior would be shyness, lack of initiatives in social interactions etc.

- Gordon Allport suggested that there are three major traits, viz. **cardinal, central** and **secondary** traits in personality.
   o The special trait which provides uniqueness to the person is known as **cardinal trait**. The cardinal trait is observed in almost all the behavior throughout one‘s life. A child who becomes the monitor of the class since beginning tries to be a leader in the state.
   o **Central trait** refers to the major characteristics of an individual. These traits make up the core of personality. Central traits, such as honesty and sociability, they usually number from five to ten in any one person.
   o **Secondary traits** are characteristics that affect behaviors of a person in fewer situations. These traits are less enduring. For example, a person is invited to attend a marriage party, He may wear sherwani for this purpose but in general he may like to wear casuals.

- Personality psychologist Raymond Cattell (1965) viewed that personality is made of two types of traits – the **surface traits** and the **source traits**. He called source traits as the core factors of personality and they are underlying internal traits responsible for behaviors. On the other hand, surface traits are some general traits and are possessed by all which are observable patterns of behavior

Topic: 80- Personality Trait Theories

- Another trait theorist Hans Eysenck (1992, 1994, and 1995) also used factor analysis method to identify patterns of traits to discuss about the nature of personality. He viewed that personality could be described in terms of just three major dimensions: extroversion, neuroticism and psychoticism. The extraversion dimension relates to the degree of sociability, the neurotic dimension emphasizes emotional stability and psychoticism encompasses to the degree to which reality is distorted. Eysenck suggested that behavior of a

person can be predicted accurately in a variety of situations by evaluating along these three dimensions.

- **The most influential trait approach contends that five traits or factors – called the "Big-Five" – lie at the core of personality. Now-a-days the "Big-Five" represent the best description of personality traits. The "Big-Five" factors are:**
  - Extroversion,
  - Agreeableness,
  - Conscientiousness,
  - Emotional stability and
  - Openness to experience.
- **Extroversion** refers to a personality dimension describing someone who is sociable, gregarious and assertive.
- **Agreeableness** describes someone who is good-natured cooperative and trusting.
- **Conscientiousness** is a measure of reliability that describes someone who is responsible, dependable, persistent and organized.
- **Emotional stability** characterizes someone as calm, self-confident, secure. The person with high negative scores can be nervous, anxious, depressed and insecure.
- **Openness to experience** dimension of personality characterizes someone in terms of imagination, sensitivity and curiosity.

Topic: 81- Psychodynamic Theories of Personality

- Psychodynamic theories of Personality are otherwise called as Psychoanalytic theories of Personality. These theories are based on the fact that personality is motivated by inner forces about which individuals have little awareness and over which they have no control.
- Sigmund Freud, an Austrian physician propounded the psychoanalytic theory in the early 1900s.
- He (Sigmund Freud) tried to explain the concept of instinct or drive which is known as urges.
- He (Sigmund Freud) argued that much of our behavior is motivated by the unconscious, a part of the personality.
- Freud viewed that personalities of people develop through conflict between their primary drives (sex and aggression) and social pressures; and early childhood experiences are extremely important in the development of personality.

Topic: 82- Structural Personality: Topographical Aspects of Mind

Sigmund Freud, a clinical psychologist developed a comprehensive theory of Personality. He has categorized the structure of personality into two:

- Topographical aspects of mind
- Dynamic aspects of mind

Topographical aspects of mind:

Freud has divided the structure of mind into three levels:

1. the conscious,
2. the preconscious or the subconscious and
3. the unconscious.

The **conscious** mind consists of all the things of which a person is aware at any given moment. In other words, it refers to the experience or awareness of an object at the present moment. Freud compared the human mind to an iceberg and viewed that only one-tenth part of the mind deals with conscious experience.

The segment of the mind where the readily recallable is to be located is called by Freud the **preconscious or subconscious**. The subconscious is the storehouse of surface memories and are readily retrieved though are not conscious at the moment. The subconscious process is weak and when it gets some force from the outside, it comes to the conscious level.

Freud emphasized the unconscious mental process which is about 9/10 part of the mind. He believed that the **unconscious** part of the mind is the important determining factor in human behavior and personality. It is the level of mind where thoughts, feelings, memories and other information are kept that are not easily or voluntarily brought into consciousness.

Topic: 83- Structural Personality: Dynamic Aspects of Mind

Freud in his theory of personality has described that personality consists of three separate but interacting components: **the id, the ego and the superego.** According to Freud, the dynamic aspects of self-refer to the agents through which conflicts arising in the instincts are resolved.

1) **The id:** The primitive part of the personality is id. It is derived from the Latin word which means _it'. It is the raw, unorganized and innate part of personality. **It is representative of the unconscious and the storehouse of instinctual desires**. The Id is completely amoral part of the personality that exists at birth which contains all of the basic biological drives related to hunger, sex, aggression and irrational impulses. Those drives are fuelled by _Psychic energy' which Freud termed as _the libido'. The id is guided by the pleasure principle, in which the goal is the immediate reduction of tension and the maximization of satisfaction. The pleasure principle can be stated as ‒if it feels good, do it‖.

2) **The ego:** It begins to develop soon after birth. The ego comes from the Latin word for _I' which is mostly conscious and is far more rational, logical and cunning than the id. The ego is the _executive' of personality. **The ego maintains balance between the desire of the id and the realities of the objective, outside world.** It is guided by the reality principle. Therefore, the ego satisfied the demands of the id and reduce libido only in ways that will not lead to negative consequences. Sometimes ego decides to deny the id to satisfy its desires because the consequences would be painful.

3) **The superego:** The final part of personality is called the superego. The superego is derived from the Latin word which means _over the self'. It develops in childhood as the child learns rights and wrongs of society and modeled by parents, teachers and other significant individuals. **The superego is guided by the moral principle**. There are two parts to the superego: the ego ideal and the conscience. The ego ideal is the sum total of all the behaviors which the child has learned about from parents and others of the society. The conscience is another part of the superego that makes people feel pride when they do the right thing and guilt, when they do the wrong thing. The superego works at both conscious and unconscious level.

Lecture: 23

(Topics: 84-88)

Topic: 84- Types of defense Mechanism: -

Topic: 85- Successful Defense Mechanism: -

Topic: 86- Un-successful defensive mechanism-1: -

Topic: 87- Un-successful defensive mechanism-2: -

Topic: 88- Developing Personality: Psycho sexual Stages: -

Topic: 84- Types of Defense Mechanism

- The use of defense mechanisms are a common phenomenon and used normally by everyone.
- The defense mechanisms function in the unconscious level.
- ―Defense mechanisms are a means of distancing, transforming or falsifying a person's reality which reduce anxiety and allow the individual to cope with whatever he/she is facing.‖
- Defense mechanisms can be healthy or unhealthy depending on the situations and the way the person uses them.
- There are different types of defense mechanisms which are used by different persons at different spheres.
- A person can use a number of different mechanisms even for a similar type of situation.
- All defense mechanisms do not help; some are maladaptive and can lead to total loss of individual from the reality.
- The defense mechanisms are classified into **successful and unsuccessful defense mechanisms**.

Topic: 85- Successful Defense Mechanism

Sublimation

- It is considered as the most complete and successful of all defense mechanisms.

  acceptable directions.

  acceptable behavior.
- For example, a person who is very aggressive becomes a professional cricket player.

Topic: 86- Unsuccessful Defense Mechanism

It includes the following:

- Denial

- Regression
- Repression
- Projection
- Rationalization
- Reaction Formation
- Displacement
- Identification
- Compensation

(i) Denial:

It is a type of defense mechanism in which the person refuses to acknowledge a threatening situation. It is the most primitive form of defense mechanism. For example, a person who is a drug addict denies being a drug addict.

(ii) Regression:

It is a form of defense mechanism in which a person falls back on child-like patterns of responding in reaction to stressful situation. It refers to a state where an adult behaves like a child. For example, a six-year-old baby starts wetting his bed after his parents bring home a new baby.

(iii) Repression:

It is a primary defense mechanism and it is a direct method of dealing with anxiety. Repression is a defense mechanism in which the person refuses to consciously remember a threatening or unacceptable event, instead putting those events in to the unconscious mind. For example, a person who was sexually abused as a child cannot remember the incident because bad memory has got repressed inside.

(iv) Projection:

The literal meaning of projection is ―throwing out‖. It is commonly used by everyone. Projection is a form of defense mechanism by which one transfers the blame of his own shortcomings, mistakes and misdeeds to others and attributes to others his own unacceptable thoughts. For example, a lady is attributed to her friend's husband but denies this and believes the friend's husband is attracted to her.

Topic: 87- Unsuccessful Defense Mechanism

(v) Rationalization:

It is the invention of unconsciously acceptable motives by the ego to cover up those unconscious motives which it cannot accept. In other words, it refers to the substitution of a socially approved motive for a socially disapproved one. In this type defense mechanism, a person invents acceptable excuses for an unacceptable behavior. For example, a person who gives a lot of

donations to charity may consider himself to be a very generous but in fact he is motivated by guilty conscience.

(vi) Reaction Formation:

It is the defense mechanism by which a person forms an opposite emotional or behavioral reaction one's true feelings. Reaction formation is the development of behavior which is opposite to the unconscious desires of the person. For example, a person is very angry but overtly he may state that he is not angry by showing smiles.

(vii) Displacement:

Displacement is commonly found in dreams of normal adults. It implies that redirecting feelings from a threatening target to a less threatening one. In this defense mechanism the discharge of an unconscious impulse by shifting from one original object to a substitute takes place. For example, a child may be angry with his mother; he may not express his anger towards his mother due to social restriction, but may do so by breaking his doll into pieces.

(viii) Identification:

It is a mechanism which is very often used by normal people. In this defense mechanism a person tries to become like someone else to deal with anxiety. For example, a student may identify himself with a bachelor professor whose qualities he may like.

(ix) Compensation:

Compensation is also called as substitution. In this defense mechanism a person makes up for inferiorities in one area by becoming superior in another area. In the process of compensation, a person tries to maintain balance of his weaknesses by overemphasizing strengths in other areas. For example, a person who is not a good player, he may put all his energizes to become a good academician.

Besides the above-mentioned defense mechanisms there are some other mechanisms like isolation, fantasy, fixation, etc. people use to overcome their unpleasant experiences. When the ego of the individual is threatened, the various defense mechanisms are used to resolve conflict and the person would have able to maintain a balanced personality. However, excessive use of defense mechanism is dangerous for the ego. Defense mechanisms are generally learned by the person during childhood.

Topic: 88- Developing Personality: Psycho Sexual Stages

Sigmund Freud provided with a view that personality develops through a series of five psychosexual stages. According to him failure to resolve conflicts at a particular stage can result in fixation. He proposed that experiences and difficulties during a particular childhood stage may predict specific characteristics in the adult personality.

The process of personality development of the child is divided into the following five overlapping stages:

1. Oral Stage (birth to 12-18 months)

 a) Oral sucking

 b) Oral biting

2. Anal Stage – (12-18 months to 03 years)

 a) Anal Explosive

 b) Anal Retentive

3. Phallic Stage (3 to 5 – 6 years)

4. Latency Stage (5 – 6 years to adolescence)

5. Genital Stage (Adolescence to adulthood)

In the **first stage** of psychosexual development the mouth is the primary site of a kind of sexual pleasure. If there is frustration at oral stage, it may result in verbal hostility. The **second stage** of psychosexual development which begins from 12 months and continued up to 03 years, during this period the area of getting pleasure changes from mouth to the anus and the child gets pleasure by retaining and controlling feces and urine. The **phallic stage** begins at about age of 03 years. During this stage the sex energy is localized in the genital organs. In this stage the child must also negotiate the important hurdle of personality development, the oedipal conflict through the process of identification. After the resolution of oedipal conflict, the child enters in to the **latency stage** of psychosexual development which lasts until puberty. In this period, the sexual interest becomes dormant. The **last stage** is the genital stage which extends until death. At this stage the sexual instinct starts to develop with the aim of reproduction.

Lecture: 24

(Topics: 89-99)

Topic: 89- Language Development What is Language: -

Topic: 90- Referential Language Development: -

Topic: 91- Expressive Language Development: -

Topic: 92- Transition in Language Development: -

Topic: 93- Key Signs of Language Development: -

Topic: 94- Theories of Language Development: -

Topic: 95- The Learning Perspective: -

Topic: 96- The Nativist Perspective: -

Topic: 97- Inter-Actionist Perspective Development: -

Topic: 98- Components of Language-1: -

Topic: 99- Components of Language-2: -

Topic: 89- Language Development: What is Language

Overview:

Language is a system of communication used by many of us to communicate our feelings, information and expression to our fellow beings. Language is a system of communication based upon symbols, words, phrases and sentences. It is language that differentiates humans from non-human creatures. Language may be described as being ordered collection of standardized signals and structures according to set rules which are used as the means to communication. The process by which children communicate and understand the language is called Language development.

More than other different aspects of development, it mirrors the expansion and maturity of mind. Children initially express single words and subsequently join words together i.e., join two words to form sentences and later three-words to form sentences. Children everywhere throughout the world pursue alike model of language development. They produce different sounds from birth to attract the attention, recognize sounds, utter single words, then many words and then go on to phrases and sentences. Many different theorists developed different theories regarding language development like Skinner, Chomsky and Vygotsky.

This lecture explains language and its development as well as transitions and key signs of language development. It also includes theories of language development and components of language. Besides, it also takes into account the Sequence of language development at preschool, kindergarten and elementary level. The lecture concludes by suggesting some physical activities geared to the level of pre-school, kindergarten and elementary school children.

What is language? We all communicate with one another. We share information, convictions, opinions, wishes, dangers, thanks, promises, guarantees, feelings and emotions. We can laugh at to express entertainment, joy, we smile to convey our entertainment, delight, support or zealous sentiments, we shout to communicate our anger, energy or nervousness, we raise our eyebrows to convey sentiments of shock or opposition, however the system of communication before everything else is language.

We use the language as the system of communication that relies upon words and composition of words to form sentences. Language is a method that is mainly used for communication. It is called linguistic communication. Chuckling, grinning, and screaming are ways that are named as nonlinguistic communication. Generally, all non-human creatures exchange information. However, they are not familiar to such a system of communication which is as complex as the language. They correspond by nonlinguistic means taking after our grinning, snickering, shouting, gripping of tighten hands, and rising of eyebrows.

It is language that differentiates humans from non-human creatures. As humans utilize the language capacity consistently to grip thoughts, share the emotions, comment on the world, and see one another's personalities. **Language can be narrated as an organized arrangement of uniform signals and rule governed structures that are utilized as means for communication. Language occurs through reading, writing, listening and speaking.** In order to become fully functioning members of school as well as the society, we must learn the components, the principles, the structure, and the traditions of language system.

As discussed above, we can summarize the language as:

- **We communicate our different emotions with others.**
- **Language is a system of communication.**
- **Language differentiates humans from non-humans.**

Topic: 90- Referential Language Development

What is language development? Language development is the process by which children come to understand and communicate language. From birth up to the age of five, children develop language at a quick pace. The phases of language development are wide-ranging among people. On the other hand, the age and the pace of language development vary from child to child at which they achieve every landmark. As far as the language development in children is concerned, it should be compared to the standards and not with their fellow children. Usually, the rate of language in girls is speedier as compared to the boys. As compared to some other aspects of development, it mirrors the growth and development of mind. After the age of five it generally turns out to be much difficult for the children to learn it. Receptive language develops quickly than expressive language development. Two unique styles of language development are as under:

- **Referential language development**
- **Expressive language development**

Referential language development:

- Children at first express only words and afterward join them together, at first into sentences comprising of two-word and later into sentences comprising of three-word.
- It is a style of right time learning of language in which children use language for the most part to label objects.
- This style is useful to young children because this way extends their understanding of vocabulary.

Topic: 91- Expressive Language Development

- Kids first utter sounds like babbles that copy the rhythm and beat speech.
- Most kids utilize a blend of these styles. Another commonly known style involved in language learning is expressive style.
- In this style little children apply language to discuss their specific emotions and requirements.

As discussed above, we can summarize the language development as:

- Language development is the process to understand and communicate language.
- Referential language development is denoted as labeling different objects.
- In expressive language development children discuss their emotions and needs.

Topic: 92- Transition in Language Development

There are several transitions that help to explain kid's acquisition regarding language development:

- **First transition** occurs when first year ends and it proceeds in the school year with the emergence of words into essential vocabulary
- **Second transition** happens when children change from saying one word at once to joining words into expressions and basic sentence about the end of school year.
- **Third transition** happens when kids move afar utilizing simple sentences to express one thought to complex sentences communicating different thoughts and the relationship between them.

Topic: 93- Key Signs of Language Development

Children everywhere throughout the world pursue alike model of language development. Several milestones of which are as follows:

Babbling and gestures: Children dynamically make sounds from birth to onward years to attract attention. These continue till the mid of the first year.

- **Crying:** Infants even cry during childbirth which can indicates trouble but these sounds indicate many other things also.
- **Cooing:** Children first utter murmuring sounds which are pronounced from backside of the throat and generally convey delight on interaction with the care giving persons.
- **Babbling:** Amid center of the first-year children babble, that is they deliver series of consonants.
- **Gestures:** Newborn children begin utilizing motions. They may wave bye-bye, node their head to signify "yes".

Recognizing language sounds: From birth up to six months of age newborn children perceive sounds when they change, despite what language they originate. All through the following six months, newborn children show signs of language development at seeing the conformities in sounds from their language, the one their elders speak and bit by bit lose the ability to differentiate that are not noteworthy in their own particular language.

First words: Between 8-12 months of age, babies frequently show their first conception of words. Children say their first words when they have been gesturing to correspond with their parents regularly and utilizing their own particular sounds. The presence of first word is continuation of this communication process.

A Child first word may be the name of individuals, well known animals, toys, body parts, garments and family things. Kids regularly express different goals with their one single word. The baby's spoken vocabulary quickly increases after the first word is pronounced. One and a half year old baby can talk around fifty words. On the other hand, near the age of almost two years they can have words around 200.

Two words utterances: Children during the age of 18-24 months speak two word expressions. To go on expression with just two words, the kids depend very much on motion, manner and the background.

We can summarize transitions and the key signs of language development as:

- Children go through the different transitions in language development.
- These transitions help him in acquisition of language.
- Children follow different patterns in language development like babbling, recognizing sounds, uttering one then two and then many words.

Topic: 94- Theories of Language Development

- Over the last fifty years, several theories have been put forward to explain the process by which children learn to understand and speak a language.
- Theories of Piaget, Vygotsky, Chomsky, Skinner, Skemp, Coleridge.
- Language is the vehicle of discretion, means the peculiar mode to transfer, transmit the intended message to the receiver.
- A word can cause to sink into the deepest despair or lift us to inspired action.
- Language helps in the formation of concepts, analysis of complex ideas, and to focus attention on ideas which would otherwise be difficult to comprehend.

Topic: 95- The Learning Perspective

- This point of view contends that children copy what they see and hear. Kids learn from punishment and reinforcement. The main scholar associated with this learning viewpoint is B.F. Skinner.
- According to this theory, children learn language the same way they learn other kinds of behavior
- Through reinforcement, parents motivate and reinforces their babies for making resemble adult speech, and so children generalize abstracts and make more of these sounds as they grow
- Behaviorist opined that children utter sounds at random, in which those that sound like adult speech is reinforced.

Topic: 96- The Nativist Perspective

- The nativist point of view narrates that people are naturally made to learn knowledge.
- Noam Chomsky is the main scholar connected with this point of view.
- He recommended that the people contain a language acquisition device (LAD).
- It is comprised of grammatical rules which permit the children to understand the principles of language which they generally listen.

Topic: 97- Inter-Actionist Perspective Development

- Inter-actionists argue that language development is both biological and social.
- They contend that language learning is affected by the desire of children to communicate with others.
- Children conceive language with the brain that develops gradually and makes them to obtain new understandings which they are convinced to report to others.
- The main scholar connected with this theory is Vygotsky. This model concentrates on Vygotsky's model of collaborative learning.
- Collaborative learning is the way to go through discussions with more developed individuals and it can help children both psychologically and phonetically in language development.

As discussed above, we can summarize the theories of language development as:

- According to learning perspective, we learn by reinforcement and punishment.
- Nativist perspective views that people are naturally inclined to learn language.
- Integrationists are of the view that we learn language through our interaction with others and it views language development in social context.

Topic: 98- Components of Language

Following are the components of language:

- **Phoneme**
- **Phonology**
- **Morphology**
- **Syntax**
- **Semantics**
- **Pragmatics**

Phoneme:

A phoneme is a basic unit of phonology. It is the smallest unit of sound that may cause a change of meaning within a language. It doesn't have meaning by itself. Phonemes match up to the sounds of the alphabet, although there is not always a one-to-one connection between a letter and a phoneme.

For example, the word ―hat‖ has three phonemes: 1- **/h/** 2- /a/ 3- /t/

However, the word "shape," has five letters but only three phonemes: 1- /sh/ 2- /long-a/ 3- /p/

English language has around 45 different phonemes, which are associated to letters or combinations of letters. A phoneme can have a specific pronunciation in one word and a different pronunciation in another word.

Phonology:

Phonology is the branch of language, which is concerned, with the orderly organization of sounds in language. Generally, it has focus on the study of system of phonemes in language. It covers linguistic analysis either at the level of word or at the levels of language where sound is assumed to be structure for conveying linguistic meaning. Phonology includes the study of equivalent organizational systems of signs in language. The study of verbal communication structure within the language is known as the phonology. The smallest unit of sound to formulate the language is called the phoneme.

For example, Word ‒CAT‖ contains three phonemes. Word ‒HAT‖ contains three phonemes. Word ‒BAT‖ contains three phonemes.

The word phonology also refers to the phonological system (system of sounds) of the language. This is the fundamental systems which a language is comprised of. Phonology is very often distinguished from phonetics. Phonetics concerns with the physical production, audio communication and understanding of the sounds. Phonology describes the way sounds function within a language to encode the meaning. Phonetics belongs to descriptive linguistics and phonology to theoretical linguistics.

Topic: 99- Components of Language

Morphology:

The term morphology is Greek and is a makeup of *Morph* means shape, form. And *-ology* means the study of something.

The term is also used i:

1. **Biology** as the scientific study of structure of animals and plants

2. **Geology** as the study of formation and evolution of rocks and land forms.

Morphemes include base words, like: ‒Cat‖ ‒Cow‖ ‒Dog‖ ‒Goat‖

And affixes like:

Un- **Un**-planned, **Un**-seen, **Un**-pleasant

Re- **Re**-play, **Re**-tell, **Re**-call

Knowledge of the morphology is related to vocabulary development and reflects the smallest building blocks for comprehension. Morphemes, the basic unit of morphology, are the smallest meaningful unit of language. So, a morpheme is a series of phonemes that has a special meaning. Some morphemes are individual words (such as "eat" or "water"). These are known as free morphemes because they can exist on their own. Other morphemes are prefixes, suffixes, or other

linguistic pieces that aren't full words on their own but do affect meaning such as the "-**s**" at the end of –cat**s**‖ or the "**re**-" at the beginning of –r**e**-play‖.

Syntax:

Syntax is related to the structure of sentences and it determines which words to go where. Studying of syntax allows us to understand the rules about how language works. It is believed that there are certain rules that apply to all languages. Syntax is a set of rules for constructing full sentences out of words and phrases. Every language has a different set of syntactic rules. In English, the smallest form of a sentence is a noun and a verb phrase. Adjectives and adverbs can be added to the sentence to provide further meaning. Word order matters in language. For example, the English sentences the Ahmad ate the apple and the apple ate the Ahmad do not mean the same meaning, even though they contain the exact same words.

Semantics:

Semantics is the study of meaning. What is meaning? How is meaning created in language? How do people understand language and why do we understand it like we do? One of the main reasons we use language is to pass meaning from one person to another, and semantics deals with it. Grammatical structure of the language helps us understand the language. Semantics refers to the ways in which a language conveys meaning. Semantics moves beyond the literal meaning of words in language and is culture dependent.

Pragmatics:

It is the study of human actions, thoughts and linguistic signs, (words and sentences) in real situations. Pragmatics refers to the ways the members of a community use the language. The way they speak to their parents is not the same way we speak with our fellow children. The language used in a formal conversation may have less resemblance to what we could hear at a lunch with our fellow children. The conversational style that we use in our day-to-day conversation is much more different from that of the language we use when we are reading a storybook for a kid. Pragmatics deals with knowing the difference between the two styles and when to use which style.

As discussed above, we can summarize components of language as:

- **Phoneme** is the basic unit of language and is concerned with the sounds of alphabets.
- **Phonology** deals with the sounds in a language.
- **Morphology** is related to the vocabulary building.
- **Syntax** deals with the structure of sentence and the sequence of words in it.
- **Semantics** studies meanings in a language.
- **Pragmatics** studies human actions and their explanation by signs in language.

Lecture: 25

(Topics: 100-106)

Topic: 100- Environmental Influences on Language: -

Topic: 101- Language Development at Preschool and Kindergarten Level: -

Topic: 102- Language Development at Elementary Level: -

Topic: 103- The school and language development: -

Topic: 104- Suggestions for improvement in children's language: -

Topic: 105- Activities for developing oral expression in the school system: -

Topic: 106- Activities for developing oral expression in the school system learning: -

Topic: 100- Environmental Influences on Language

Language development is never a static procedure; it is fairly a procedure that is always advancing. One can contrast this with the physical environment of children. The rate of these developments is affected by the environment which plays an essential part in the Language development of a kid. Some language researchers see the similar attitude in teenager's language acquisition everywhere throughout the world. However, other language specialists contend that context in which learning happens clearly, impacts language acquisition.

One perspective clarifies the effect of environment on language development. It named the behaviorist theory. Main advocator of this theory is B.F. Skinner. He recommended that language is gained in the same manner as other behavior, through operant conditioning. In operant conditioning, learning is characterized as changes in behavior as a result of interaction that happens after a response. Skinner said that operant conditioning happens in language development when sounds are made by a youngster and afterward reinforced by their guardian's responses. Result of this reinforcement may be an energized smile. This makes the kid more prone to repeat the word and associate it with an object or occasion. This operant conditioning consolidates with imitation to permit quick language development to happen.

There is another perspective that explains the collaborations between inherent ability and environmental impacts. Two fundamental sub-groups exist inside of this point of view:

Information-processing perspective of language development:

Some information processing scholars expect that kids comprehend complex language through intuitive intellectual abilities consolidated with their environmental experiences. They concur with

the biological theories that newborn children are conceived with a surprising capacity to examine language. They additionally contend that these capacities are likely not adequate to account for the greater part of their language development.

Social interaction perspective of language development:

Proponents of social interaction theories stress that social aptitudes and language experiences are necessary to language development. An active child keeps the capacity to develop language will try to convey what he wants to say. At the point when the child makes these efforts at language development, parents provide the experiences that help him in this process.

As discussed above, we can summarize influence of environment on language.

- **Language development is an ever changing process.**
- **Different perspectives exist that explain the effects of environment on language development.**
- **Skinner believes that language is gained in the same manner as behavior.**
- **Another perspective sees inheritance as vital in influencing language development.**
- **Some view that children learn language through cognitive skills but some others attach social context to it.**

Topic: 101- Language Development at Preschool and Kindergarten Level

From birth	Receptive Language	Language learning begins since childbirth. Children at this stage are conscious of the sounds in the surroundings. They pay attention to the verbal communication of those close to them. They cry if there is an unforeseen commotion. They wake up by loud noise and feel still due to the noise.
	Expressive Language	Children formulate sounds which realize that they are encountering agony or joy.
0-3 months of age	Receptive Language	At this stage, children form out how to swing to others when they talk. The children smile when listens to the voice. Truth be told, they appear to perceive the well-known voice. They will quiet at the noise of it on the off chance that they are weeping. Children at thisstage will also discontinue their action and gotoo near to the sound of new voice. The children frequently respond to soothing tones; it does not matter the voice is familiar or not.
	Expressive Language	When an important individual comes in the vision, the child smiles at. The children repeat the identical sound a lot and ―coo and goo‖ when they are satisfied.

4-6 months	Receptive Language	At this stage, the children act in response to "no". The children likewise are receptive to ups and downs in tone of voice except to the sounds other than speech. For example, they are intrigued by toys and different articles that formulate sounds. They appreciate melody and beat. They are interested in ample variety of novel sounds, for example the sound of toaster or sounds of other machines.
	Expressive Language	Murmuring sounds happen when we play with the children. They produce sounds when they are involved merrily in activities. The children babble at this stage and the children seems to be talking.
7-12 months	Receptive Language	This time period is thrilling and amusing as the children at this time clearly listens when we spoke to him. The child looks at the face when we call him by his name. Children discover the fun of games. Children realize the names of familiar objects (Mamma, Feeder, Glass). They respond to desires ("Give it to Pappa").
	Expressive Language	Sound of child's babbling changes. This is on the grounds that it now incorporates more consonants, and additionally long and short vowels. The child utilizes speech or different sounds keeping in mind the end goal to stand out enough to be noticed. Also, child's first words (most likely not talked unmistakably) have appeared! ("Baba", "Cato", "Bye Bye", "Ta Ta)
1-2 years	Receptive Language	Children focal point is pictures in the book when we call their names, and they can indicate body parts when they are asked (ear, neck, and hand). They can understand commands ("Pull the door!", "Don't go there"). They can understand basic questions ("What's in your name?"). They like to listen their stories. They can sing melodies. They can say rhymes.
	Expressive Language	The child is builds up new words as time goes on. They can ask two-word questions like "Whose papa?" "What's cat?" They can combine two words in different ways to form Sentence like "No catto", "More water").
2-3 years	Receptive Language	At this point little child will comprehend two stage summons ("Get your socks and place them in the crate") and comprehend differentiating ideas or implications like hot/cool, stop/go, in/on and decent. He or she notifies sounds like the phone or doorbell ringing and may point or get to be energized.

	Expressive Language	He or she appears to have a word for nearly everything. Articulations are typically one; a few words in length and relatives can more often than not comprehend them. The baby may inquire, or attract the attention for something by identification it ("Apple") or by Its traits ("Red!").
3-4 years	Receptive Language	The child understands simple questions like "Whose?", "When?" and "Why?‖ They can listen to us when we call them and even from out of room.
	Expressive Language	Sentences are turning out to be longer as the youngster can consolidate four or more words. The child discusses happenings, campaigns and interesting encounters around him with his friends and mates.
4-5 years	Receptive Language	At this stage, children are being able to value different stories. They can answer crucial questions related to them. They are now being able to observe nearly everything that is said before them anywhere they are present. Their capacity to perceive sound legitimately all the time ought not to be in uncertainty.
	Expressive Language	Children talk easily in a quite easy to listen manner. They can develop long and clear-cut sentences ("We went to the hotel and ate fish which was delicious; it was a great fun for all of us"). They can narrate a lengthy story based upon their imagination. They are now able to pronounce sounds more accurately. The children can tell wonderful, exciting, artistic stories.

As discussed above, we can summarize language development language development at pre-school and Kindergarten level as:

- Language development starts from birth when baby produces sounds to realize its existence to others.
- During 0-3 months of age children reflects his emotions by listening the different sounds and smiles at viewing different personalities.
- During 4-6 months children show their reactions by yes or no and produce babbling sounds.
- 7-12 months is the age of fun and the babbling of children changes.
- Between 1-2 years of age, the children focus on pictures, they can indicate body parts and there is increase in learning of words.
- During 2-3 years of age, comprehension of compound words develops, the child can differentiate different ideas and develops the capacity to have words for nearly everything.
- During 3-4 years of age, the children listen more clearly when we call and his structure of uttering sentences extends.
- During 4-5 years of age, the child can answer questions and can appreciate stories and can

talk more clearly and more easily.
Topic: 102- Language Development at Elementary Level

As children go through elementary school years, they expand skills which make it workable for them to read and write.

Vocabulary and grammar:

They turn out to be conscious of the procedures and perceptions connected with words and they turn out to be more logical in their way to deal with words. This logical methodology is clear if youngsters are requested the first thing that rings a bell when they heard a word. Amid the primary school years, youngsters turn out to be progressively ready to comprehend and utilize complex syntax. They figure out how to utilize language in a more associated manner. Presently they can deliver relating sentences to each other and creating portrayals, characterizing stories that hang together and bode well. Youngsters must have the capacity to depict things orally before they can be relied upon to destroy those composed assignments.

Meta-linguistic awareness:

It eludes to the capacity to objectify language as a procedure and in addition an artifact. The idea of meta-linguistic awareness is useful to clarifying the execution and exchange of linguistic knowledge across languages (e.g., code exchanging and also interpretation among bilinguals). It can be narrated as the capacity to deliberately reflect on nature of the language, by means of the subsequent skills:

1. Awareness that language has the potential more prominent than that of straightforward images.
2. Awareness that words are distinct from their referents (meaning lie in our mind and not in the names, i.e., Mishell is Mishell and Danyal is Danyal.
3. Awareness that language has a structure that that can be controlled (understanding that language is impressionable: you can change and compose things in a wide range of courses (for instance, if something is composed in a linguistically erroneous manner, you can transform it).

Meta-linguistic awareness is also called "meta-linguistic capacity", which can be characterized likewise as metacognition ("thinking about knowing"). Meta-linguistic awareness can likewise be characterized as the capacity to think about the utilization of language. As Meta-linguistic awareness develops, kids start to perceive that announcements may have a literal meaning. They start to make more continuous and modern utilization of illustrations, for example, the likeness, "We stuffed the room like sardines". Between the ages of 6 and 8 most kids start to develop their meta-linguistic awareness and begin to perceive incongruity and mockery. These ideas require the kid to comprehend the subtleties of an expression's social and cultural connection.

As discussed above, we can summarize language development at elementary level as:

- At this stage the children can progressively comprehend and utilize complex syntax.
- The child is able to use language in a more concise way.

Topic: 103- The School and Language Development

- The teacher will let the students to read different books and will discover reading material that is of interest for the children.
- The teacher will help the students to make associations between what they observe at school, at home and in other day by day life routine
- The teacher will talk distinctly with the students and will help them comprehend the conversation and will discuss issues they experience during comprehension of the conversation.

Topic: 104- Suggestions for Improvement in Children's Language

- Develop interest in language through different activities like word games.
- Play activities
- Story –telling
- Dramatization
- Speaking and hearing poetry
- Informal conversations and discussion

Topic: 105- Activities for Developing Oral Expression in the School System

- Maintain eye contact.
- Remind students to speak loudly and articulate clearly.
- Have students summarize heard information.
- Model and guide sentence construction
- Compile a class booklet of students' phrases.

Topic: 106- Activities for Developing Oral Expression in the School System Learning

- Teach concept words
- Question to boost comprehension
- Teach for oral reading fluency
- Sentence completion
- Partner reading
- Monitored reading
- Repeated reading

Lecture: 26

(Topics: 107-115)

Topic: 107- Individual differences Nature and Concept of Individual Differences: -

Topic: 108- Areas of individual Differences-1: -

Topic: 109- Areas of individual Differences-2: -

Topic: 110- Areas of individual Differences-3: -

Topic: 111- Areas of individual Differences-4: -

Topic: 112- Causes of individual differences-1: -

Topic: 113- Causes of individual difference-2: -

Topic: 114- Causes of individual difference-3: -

Topic: 115- Causes of individual difference-4: -

Topic: 107-Individual Differences

The word individual differences mean that individual have differences, no two persons are alike. All the individuals' difference raised from each other can be in many respects. Children born of the same parents and even the-twins are not alike. This differential psychology is linked with the study of individual differences. We all are different in physical appearance, mental abilities, emotions, feelings, expressions, learning styles, motivations, habits, likes and dislike. Individual differences can be many forms like:

- **Physical forms like in height, weight, color, complexion strength etc.** Everybody can have different abilities and physical appearances, for example both brothers have different complexions, skin color and different heights. we should accept these individual differences to make our children successful.
- **Difference in intelligence achievement, interest, attitude, aptitude, learning habits, motor abilities, and skill.** Everybody has different IQ Level and IQ level means that the have different intelligence quotient one brother can be genius others can be average because parents get their genes by seven races.
- **Each man has an intellectual capacity through which he gains experience and learning.**
- **Every person has the emotions of love, anger, fear and feelings of pleasure and Pain and even expressions styles can be different.** We should accept these individual differences to make our children successful.

Topic: 108- Areas of Individual Differences

Definitions of Individual Differences:

- Skinner, ―Today we think of individual differences as including any measurable aspect of the total personality‖.
- Woodworth, R.S. and Marquis, D.G.: ―Individual differences are found in all psychological characteristics, physical, mental abilities, and Knowledge, habit, personality and character trait

Topic: 109- Areas of Individual Differences

Individuals differ almost in every respect. They differ in physical as well as psychological characteristics. The following are the areas of individual differences where individuals have differences, which are as follows:

- Physical differences
- Age differences
- Sex differences
- Intellectual & mental differences
- Emotional differences
- Social Adjustment
- Differences in interest and mental abilities

Topic: 110- Areas of Individual Differences

Physical Differences:

- Man differs in his physical developments structurally and functionally. These differences are seen in height, weight size of the body, structure of different parts of the body, color of hair, skin, physical strength and precision.

Age Differences:

- This is also visible difference. Age factor determines the characteristics of a person. Age five students, and age fifteen (15) students will have variety of differences in terms of height, strength, emotions, and cognitive development.

Sex Differences:

- This is natural one. That is distinction between male and female individuals. This sex differences gives male and female their characteristics relating to body, psychology, mental abilities and cultural or social roles.

Intellectual & Mental Differences:

- This is the vital areas as far as educational psychology is concerned. Because educational psychology main focus is on mental process and their manipulations in certain directions.
- Commonly intellectual differences are checked by intelligence Quotient (1Q) yard stick. This is clear difference that the 1Q ability of one person (male or female) is different from another one.
- Difference in intelligence level is seen in individuals into different categories such as genius, gifted, superior, bright, averages, imbeciles and idiots on the basis of their intelligence level.
- Mental differences are noticed in the form of perception, concept formation, and imagination, formation of imaging, memory and attention.

Topic: 111- Areas of Individual Differences

Emotional Differences:

- This is also very important factor which gives great distinguish status to a person against

others. Those who have control over their emotional feelings show better learning result as compare to those who are not well emotionally balance.

Social Adjustment:

- This area of individual differences means that how an individual is able to adjust to the new changing environment. That adjustment degree is very from individual to individual.

Differences in Interest:

- Interest may refer as a motivating force that impels us to attend to a person, a thing, or an activity. So in educational field, differences in interest means you observe some students like a particular subject, teacher, hobby or profession than other.

Topic: 112- Causes of Individual Differences

Some of the main causes of individual differences are as under:

- **Heredity:**
  One of the most significant and chief causes of individual differences is heredity. Individuals inherit various physical traits like face with its features, color of eyes and hair, type of skin, shape of skull and size of hands, color blindness, baldness, stub-finger and tendency to certain diseases like cancer and tuberculosis, mental traits like intelligence, abstract thinking, aptitudes and prejudices. Now it is an admitted fact that heredity differences result in the quantity and rate of physical as well as mental development being different and different individuals.

- **Environment:**
  Environment significantly influences individual differences. Changes in child's environment are reflected in the changes in his personality. Psychologically speaking, a person's environment consists of sum total of stimulation which he receives from conception until his death.
  Environment consists of physical, intellectual, social, moral, political, economic and cultural forces. All these forces cause individual differences. Modern psychologists believe that individual differences are caused by both heredity and environment. Personality is the outcome of mutual interaction between heredity and environment.

- **Sex Differences:**
  Development of boys and girls exhibits differences due to difference in sex. The physical development of the girl takes place a year or two earlier than the boys. Between the age of 11 and 14, girls are taller and heavier than the boys. After 15, boys start winning the race.
  Girls are kind, affectionate, sympathetic and tender while the boys are brave, hard, choleric, efficient and competent.

- **Age and intelligence:**
  Physical, intellectual and emotional development is caused by the growth in age. Many individuals differ because of the differences in intelligence. Individuals who are below the average in intelligence and mental age find much difficulty in learning and the average intelligent persons can learn quickly.

- **Temperament and Emotional Stability:**
  Some people are by temperament active and quick, while others are passive and slow, some humorous and others short tempered. Emotional stability of the individual is differently affected by physical, mental and environmental factors. Differences in emotional stability cause individual differences.

Other Causes:

- Interests, aptitudes, achievements, sentiments, character, educational and home background lead to individual differences.

Topic: 113- Causes of Individual Differences

- **Difference in Growth Rate:**
  The difference in individual growth rate is the difference in the rate at which individuals progress or develop over time. This can be in terms of physical, mental, emotional, or social development. The difference in individual growth rate can vary greatly from person to person and is affected by a variety of factors such as genetics, environment, and lifestyle.
- **Difference in Socioeconomic Background:**
  The difference in socioeconomic background is the difference in the economic and social status of two or more people or groups. Socioeconomic background is determined by factors such as income, occupation, education, and social class. It can also be determined by factors such as race, ethnicity, gender, and age. People with different socioeconomic backgrounds may have different access to resources, opportunities, and privileges. This can lead to disparities in quality of life, health, and access to education.
- **Physiological Differences:**
  Psychological differences refer to the differences in the way people think, feel, and behave. These differences can be due to a variety of factors such as culture, upbringing, education, and life experiences. People may differ in their levels of intelligence, creativity, motivation, and emotional intelligence. They may also differ in their levels of empathy, self-control, and communication skills. Psychological differences can also be seen in the way people respond to stress, cope with difficult situations, and form relationships with others.

- **Innate ability learning differences** due to hearing loss, visual impairment, speech difficulty, inattention.

Topic: 114- Causes of Individual Differences

- **Difference in Values:**
  Values are the things that are given importance by an individual. Some learners value materialist life style other moral or religious life style etc. So, education must mold the mind of young generation to have a balance values between materialism and spiritualism.
- **Study Habits:**
  It is clearly observable that some students markedly differ from other students in study habits. Some students are studious and study all the subjects with interest but other may not. Some study in isolation and some in group.

- **Difference in Psychomotor Skills:**
    Psychomotor Skill is related to some skill acquisition. Some students differ in this area also. Some students like football, other cricket, etc. Some students easily learn operating a machine and some may not. A wise teacher should diagnose students' psychomotor skills abilities and encourage them in that direction.
- **Difference in Self Concept:**
    Difference in self-concept is the totality of attitudes, judgment, and values of an individual relating to his behavior, abilities, and qualities. So, some students have positive self-concept than boost their confidence level and perform better against those who have negative self-image.

Topic: 115- Causes of Individual Differences

- Attitude —An attitude is a particular feeling about something. It is partially rational and partially emotional and is acquired, not inherent.‖
- Cognitive - our thoughts, beliefs, and ideas about something.
- Affective - feelings or emotions that something evokes. e.g., fear, sympathy, hate
- Behavioral - tendency or disposition to act in certain ways toward something
- Teacher, Friends/peer group, Parents, Teaching method, The language itself

Lecture: 27

(Topics: 116-120)

Topic: 116- Educational Provisions: -

Topic: 117- General Provisions-1: -

Topic: 118- General Provisions-2: -

Topic: 119- General Provisions-3: -

Topic: 120- Special provisions: -

Topic: 116- Educational Provisions

Whatever may be the causes, children differ in their learning abilities. It is the duty and responsibility of any school system to provide for these differences so that every child is helped to rise to a height quite commensuration with his own abilities. The following are a few of the important steps that a school might take up in this direction.

- Proper knowledge of the individual's potentialities.
- The first step in making provision for the individual differences is to know about the abilities, capacities, interests, aptitudes and other personality traits of individual pupils.
- For this purpose, help from intelligence test, cumulative record card, interest inventories, attitude scales, aptitude tests and measures for assessing personality traits should be taken.

Topic: 117- General Provisions

- Ability grouping
- In the light of the results derived from various tests for knowing individual differences in terms of individual potentialities in various dimensions, the students in a class or area of activity can be divided into homogenous groups.
- Such division can prove beneficial in adjusting instruction to varying individual differences.
- The curriculum should be as flexible and differentiated as possible.
- It should have the provision for a number of diversified courses and co-curricular experiences.

Topic: 118- General Provisions

- Adjusting the method of teaching.
- Adopting special programmes or methods for individualizing instruction.
- The size of the class or section should be as small as possible.
- The teacher should keep in view the individual differences of his students while engaging them in drill or practice work in classroom or assigning home task.
- Special coaching and guidance programme for both the dull and gifted children is most helpful.
- Bright children need some instructional materials more advanced than those for the other children. The slow learners also require reading materials different from the rest of the group. The sensory handicapped and emotionally disturbed children also require special material, equipment and space. In order to provide well for individual differences every school should be properly equipped with such facilities and materials as will be needed for all kinds of children.

Topic: 119- General Provisions

- Individual differences in learning

    In a classroom, some children are quick learners and therefore, grasp the things in no time. Likewise, some children are slow learners and therefore, takes time to follow instructions or understand instructional material presented by the teacher. These differences are natural, and teacher must know these differences and should take action according to the potentials and abilities of children.

- Learning speed due to intelligence, attitude, attention span and motor skill.
- ADHD Children

    ADHD (attention deficit hyperactivity disorder) is one of the most common neurodevelopmental disorders of childhood. It is usually first diagnosed in childhood and often lasts into adulthood. Children with ADHD may have trouble paying attention, controlling impulsive behaviors (may act without thinking about what the result will be), or be overly active. Teacher should assign challenging tasks to such students, for example, making a map, drawing a picture, etc. These strategies will help students to stay on task and foster better or concentration for children with ADHD.

- Learning Disabilities, for example: Dyslexia.

    Dyslexia is most commonly associated with trouble learning to read. Symptoms of dyslexia in children include: problems learning the names and sounds of letters, spelling that's unpredictable and inconsistent, confusion over letters that look similar and putting letters the wrong way round (such as writing "b" instead of "d"). etc. Teacher must know these learning disabilities and deal students accordingly.

- Learning and diversity

    Diversity means that there are children with different potentials present in your class, such as talented players, painters, poets, writers, and more. It is important to provide each child with an outlet according to their potential and motivate them accordingly. Encourage them to participate in sports activities so that their extra energy is utilized effectively, enhancing their brain functioning and enabling them to focus better on their studies.

- Standard and assessment

    Test should be developed keeping in view the average, slow and genius learners in the classroom. It (test) should not be so difficult that no one could do it and nor it should be quite easy that everyone could attempt it easily. The test should be conducted with a ratio of 60:40, where 60 percent of students should be able to attempt it.

Topic: 120- Special Provisions

- Provisions for Exceptional Children
- Gifted/Talented Children
- Emotionally Disturb Children
- Attention Deficit
- Hearing or visionary Problems
- Aggressive Children
- Hyper Active Children

a) Provisions for the Gifted/Talented Children

Marlance (1971) defined gifted and talented children as those with high demonstrated achievement and / or high potential ability in any one of the following areas:

- General intellectual ability
- Specified academic aptitude
- Creative, productive thinking
- Leadership
- Visual and performing arts
- Psychomotor skills

This definition has been widely used, but required some elaboration. A gifted student is one who is high in general intellectual ability and in achievement in several areas such as mathematics, science, and English. Generally, a child who possesses IQ of 140 or above and is superior in most areas of the school life or promises to be so is called a gifted child, strangely enough the gifted are forgotten students in the class. Because they are able to take care of themselves academically, they get less

attention from the teacher. Many gifted children display signs of apathy, boredom, unhappiness and even maladjustment.

The first task that teachers face is identifying the area or areas of giftedness of the students. Identification may be by an individual intelligence test, achievement tests and parental or teacher observation. Aptitude test designed to predict specialized talents in art and music, architecture, mechanics may also be used to identify talented students.

When the identification is done annually, new students not identified in prior years are found to be gifted or talented. Accordingly, it is not uncommon for as many as 25% of the school population to be identified as having a gift or a talent. It is also unwise to identify and label the gifted students; least others feel that they are not gifted. The entire exercise should be done very discreetly. Moreover, nearly every normally developing student has at least one area of high or potentially high performance that should be identified and developed as that of exceptional children.

b) Educating the Gifted Children

Much can be accomplished with existing resources. A gifted student should have time to purse topics more deeply than their classmates. Cluster of schools should combine their gifted children regularly for special enrichment programmes. School should employ community expertise in such fields as art, photography, journalisms, drama, and creative writing for their talented youngsters.

The key to educating the gifted children is to formulate individual programmes for them so that they encounter daily challenges. Such education requires teachers who have received special training that enables them to work with gifted students.

Special technique for educating the gifted fall along three lines

(a) Enrichment

(b) Acceleration

(c) Ability Grouping

(i) Enrichment

Enrichment is defined as experiences that are above and beyond the regular curriculum. Kirk (1972) states that enrichment techniques usually follow one are more of these procedures.

- Teachers attempt to challenge gifted pupils by assigning extra reading and assignments and permit them to participate in related extracurricular activities, for example, if parents can arrange time, they could take a scientifically advanced student to special classes at an institution.
- Grouping the gifted students of different schools so that they are together occasionally enabling interested teachers to challenge their abilities by group discussion and independent research.
- Providing special offerings, such as extra language or advanced science course.

- Employing for each school system a special teacher who could more from school to school, identify the gifted, aid regular teacher and actually work with the gifted in seminars or group discussions busy schedule of work. It means providing challenging and meaningful work for the gifted.

The ―Renzulli‖ model focuses on individual and small group investigations of aerial problems as the key enrichment activities for gifted students. Included in it are projects directly related to the school's curriculum? For example, students may engage in creative writing, drama, dance, and similar expressive areas. In general, any enrichment activity is appropriate that enables students develop an area of their giftedness.

(ii) Acceleration

Acceleration means some modification in the regular school programme that permits the gifted student to complete the programme in less time or at an earlier age than usual (Getzels and Dillon, 1973). Double promotion is also an acceleration type. Acceleration can be of various types: school admission based on mental age rather than chronological age, skipping classes, combining two years' work into one eliminating more basic course, early admission to high school/College.

Acceleration is important because curriculum is graded by age and every student is required to spend one school year to complete each class. Not permitting student to learn the subject matter assigned to a higher grade unnecessarily retards the educational development of many students. Stanley (1977) presents strong arguments supporting two or more years of acceleration pair to high school graduation by highly talented students. They conclude that enrichment, without any acceleration, will be injurious to the educational development of the brilliant student.

(iii) Ability Grouping

Ability Grouping has definite possibilities for dealing with the gifted. There are certain objections against grouping children according to mental abilities and segregating the gifted from the rest. It has definite advantages over teaching a class of heterogeneous group. Gifted children must be identified and grouped together in a special class so that the curriculum, instructional materials and teaching techniques can be designed to meet their requirements. But segregation should be done discreetly and without labeling the children.

(iv) Paul Torrance's Guidelines to encouraging Giftedness

- Encourage manipulation and sensitivity to objects and ideas.
- Try to be tolerant of new ideas, no matter how far-fetched they may be.
- Be flexible in setting up lessons; permit some brainstorming.
- Maintain a relaxed classroom, tutoring or therapeutic atmosphere.
- Help the child who is creative learn to get along with other children.
- Present controversial problems and challenge accepted origins.
- Teach the basics of problem solving / creative processes.
- Teach them not to underrate their own creativity, dispel the sense of awe of masterpieces.

(c)   Provisions for the Slow Learners

The term slow learner' is commonly used with reference to children with IQs between about 80-90. Those with IQ of 90 or above are considered to be within the normal or above average range. Ordinarily they have the ability to get along fairly well in a regular class-room without much special help. Those with IQ below 75-80 on the other hand are usually classified as retarded or mentally retarded. The child we call slow learner is one who is not necessarily retarded or in need of special education but is likely to need some extra help in a regular class-room. He is capable of learning just about anything that the average child is capable of it just takes him longer. Students who are slow in learning one subject are frequently slow in learning others. But this is not always the case. A child may be slow in reading, but is average or above in learning, say mathematics. Different abilities are required for learning different subjects.

(1)   Identifying the Slow-Learner

In identifying the slow-learner the teacher can make use of intelligence test scores. But IQ scores are not always true indicators of slowness in learning. Because two students are of the same IQ score may have two different types of problems. Competency-based tests, an improvement of traditional achievement tests in different school subject may also be used to identify specific backwardness of children. Observation of students' behavior, adjustment language difficulties, emotional problems etc. by parent and teachers can provide useful information in identifying slow learner.

(2)   Periodic Medical Examination

Deficiency in ability required for a particular task may cause slow or poor learning in relation to that task. If the physical defect is recognized and corrected, the slow learner becomes a normal learner. Our school systems, must, therefore, provide for periodic medical examination of students, for taking remedial measures.

(d)   Learning Handicaps in exceptional Children

Exceptional children are those who are considerably above or below the average of their age-group in characteristic or behavior. Those above the average of their age-group are termed as gifted or creative, and have been discussed earlier. Here we shall talk about these exceptional children who are below the average of their age-group.

An exceptional child with a learning handicap/disability is one who differs from other children so much in one or more characters, for example, in vision or in behavior that the child cannot profit maximally from the typical pattern of instructions provided to normally developing children. Change must be made in what is taught or how it is taught in order is provide for handicapped exceptional children. A child is classified exceptional on the basis of careful assessment/identification of various types of learning handicaps, so that they may participate in programmes for handicapped children as defined by the state.

There are children who have a good vocabulary, who know what words mean, and who can use words in conversation, but who are unable to learn to read. Such children are said to have **"dyslexia"** which in itself merely means inability to read‖. There are also children who have

what is called **"hyperlixia"** which means who can read at an early age, but who cannot understand what is spoken to them. The word dyslexia has come to be associated with learning disabilities generally, since so many of them related to the problem of reading. Actually, dyslexia is but one type of learning disability, and there aretwo basic kinds: visual and auditory.

A child who is **"visual dyslexic"** has difficulty in translating written letter into roundsuch a child may also have difficulty is discriminating between two letters which are similar as ‒b‖ and ‒d‖ or ‒n‖ and ‒u‖ when written in text form. This often extends to difficulty in recognizing the difference between such words as ‒cat‖ and ‒cap‖ or ‒top‖ and ‒tip‖ when they are in print. Such children may have other nonbearing difficulties as well, as in the case of a child who insists to play with a ball but who does not enjoy watching others play a ball game because he or she cannot understand what is going on even though can she ‒see‖ it.
A child who is an **"auditory dyslexic"** has difficulty in translating sound in to meaning. Sometimes this shows up as difficulty in discriminating between sounds that are somewhat similar: a child with such a difficulty will not discriminate between ‒bat‖ and ‒cat‖ when they are given orally. He may also fail to recognize the similarity between ‒milk‖ and ‒silk‖. A child with auditory dyslexia may also have difficulty remembering things told to him orally.

Another type of difficulty that learner may have is **"sequencing"**, for example, they are unable to put blocks in the same order as a model or to get the steps right in a long division problem, or to get the letters in the right order in spelling (writing ‒mlik‖ for milk‖).

A complete programme of diagnosis will include medical reports and other information.A fairly complete list of things that can be done to identify various types of difficulties is given below:

a.   Evaluation of intelligence.
b.   Visual-motor Perceptual Tests.
c.   Personality Tests
d.   Linguistic Evaluation
e.   Reading Tests
f.   Pinpointing of Behavioural Difficulties
g.   Medical History Evaluation
h.   Evaluation of Physical Development, Family Situation and Emotional Stresses inthe Home.
i.   Physical Examination, both General and Neurological Including Visions and Hearing Tests.
j.   Assessment of Cognitive Development.

(e)   Placement with a Teacher

Emotional crises, difficulty in interaction with the teachers and lack of proper environmental setting may also cause slow learning. In order to find measures to prevent failures in learning, each learner should be placed with the teacher with whom he can interact most effectively. The positive effects of such interaction can bring about remarkable changes in a student. In helping the slow learner the teacher should (i) look at

the total child (development, maturation, motivation etc.) and (ii) examine the educational setting (curriculum content, mode of instruction and the learning environment).

(f)   Avoid Competition

Competition is especially harmful for slow-learners. This does not do so much good for their self-concept. Competition causes the slow Learner stop trying and to feel even less adequate than he did originally. It is supposed to contribute to frustration, discouragement and feeling of worthlessness in them.

(g)   Remedial Teaching

Teachers must provide remedial teaching/instructions for the slow learner. They have to repeat their instruction/directions several times and in simple words, they should give practice drill and review exercise lessons. They should introduce new material in small easy steps, relating it to what he already knows. Short range incentives are more productive than intrinsic motivation towards long range goals.

Non-Promotion

Some teachers argue in favour of detention or non-promotion of slow learners. But when a youngster is not promoted, he perceives himself and is perceived by other as a failure. He thinks that he has been punished. As dissatisfaction increases, he becomes a truant and drop-out. The slow learner is not to be branded as a failure/non-learner, not to be compared with others who are not really his peers. He is to be helped and listened to, and should be encouraged and understood rather than beaten down, at home as well in school. If possible **Special Classes,** especially by trained teachers may be started for slow learners who have a strong need for accomplishments, which might be difficult for them in a regular class. Each small success or accomplishment must be rewarded.

(h)   A Disadvantaged Child

Is one who is (a) handicapped or disabled because of certain conditions, (b) denied the opportunity to grow normally at his own natural rate (c) has been denied the basic / universal rights of children i.e., a stable home, loving mother, a supportive father, (d) who suffers from a continuing inadequacy of basic necessities of life. Thus, the term continuing inadequacy is of basic necessities of life. Thus, the term disadvantaged refers to an inner condition of a child resulting from an outer deprivation; there are several categories of disadvantaged children, such as: Economically disadvantages, socially, culturally, intellectually, educationally or linguistically disadvantaged.

(i)   Causes of Disadvantaged Conditions
(a)   Economic-poverty, poor occupational status, unemployment, poor housing/diet/health clothing etc. or inadequate medical care, cleanliness, pre-natal and post natal complications.
(b)   Home and neighborhood-school inadequacy, crowded home, lack of play space, slum type, homes.
(c)   Defective child-rearing and parenting behavior, lack of cultural stimulation, parental rejection or over-indulgence.

(d)   Intellectual, educational, retarded cognitive growth, delayed speech, overstimulation, failure, stagnation, and dropout.

(e)   Psychiatric problems, behaviour problems and disorders.

(j)   Programme for the Disadvantaged

(a)   Preventing programme for health, nutrition and care.

(b)   Preparatory and pre-school education programmes

(c)   Educational reform for adapting curricular, school, teachers teaching methods and textbooks.

(d)   Parent education and functional literacy programmes.

(e)   Social and welfare programmes for adolescents/Youth/Families and communities.

Lecture: 28

(Topics: 121-130)

Topic: 121- Measurement of individual Differences Tests of General Intelligence: -

Topic: 122- Tests of Aptitude: -

Topic: 123- Interest Inventories: -

Topic: 124- Test of personality: -

Topic: 125- Competence Based Tests: -

Topic: 126- Multiple Choice Tests or Essays: -

Topic: 127- Computer Assisted Testing (CAT): -

Topic: 128- The Portfolio Approach: -

Topic: 129- Grade Equivalent Scores: -

Topic: 130- Curriculum Testing: -

Topic: 121- Measurement of Individual Differences: Tests of General Intelligence

Measurement is the assignment of a number to an object or event according to rule. This may represent something physical, as when you step on the scales and note, with dismay or pleasure the number that indicates your weight. Or it may be more subtle, as when you take a vocational aptitude test and receive your score in medical or engineering aptitude test. In order to draw meaningful comparison, measurement, must be meaningful. In order to have meaning, all measurements must satisfy two basic criteria: they must be reliable and they must be valid.

a) **Reliability** is the indication of the consistency of measurement, for example, if your weight reads 140Ibs, one day, 240 pound the next day, and 40 pound the days after, your faith in the precision of the scale would be secretly shaken. The same is true of psychological test. Our measurements must be consistent over repeated tests of measurement. A good test should yield roughly the same scores over repeated measurements, as long as that which is being measured does not change dramatically.

b) **Validity** Measurements must also be valid, validity is an indication of the extent to which a test measure what it is supposed to measure.

c) **Correlation** In order to give precise statements about reliability and validity, a statistical technique called correlation may be utilized. It allows scientists to make predictions; correlation is a statement about the strength of the association between two (or possibly more) variables. If the correlation between two variables is high, the variables will tend to be very together, that is, wherever one of the traits is found, chances are good that the other trait will also be found. If we observe that people with bland hair usually have blue eye then we would say that there is correlation between the variables: hair color and eye color. This is not to say that having bland hair causes one to have blue eyes, but it does allow us to predict, whenever we know that certain individuals have bland hair, that they are also likely to have blue eyes. As discussed earlier, individuals differ in sensitive, affective and psychomotor abilities. They differ almost in every respect-personality, attitude, interest, intelligence and achievement. Individual differences can be identified and measured through finer measurement instruments know as psychological test. A psychological is a pattern of stimuli, selected and organized to elicit responses which reveal certain psychological characteristics in the person who makes them.

The following psychological tests can be used by the teacher or psychologists to measure difference among individuals.

Tests of General Intelligence:

Sometimes these tests are also referred to as tests of mental ability, tests of general ability or test of scholastic aptitude, these tests measure the psychological traits termed to —intelligence‖ which provide the best possible single clue to the understanding of children‘s academic performances. There are various tests of intelligence like standard-Binet intelligence test (revised), Wechsler intelligence scale for children and various culture free and culture fair tests.

Topic: 122- Tests of Aptitude

- All measurements must satisfy two basic criteria: they must be:
  o Reliable and they must be valid.
- These tests measure the possibilities of success in future performance.
- One of the most famous batteries, which measure children‘s different aptitudes, is —differential aptitude test battery‖ which measures the following abilities.
  o Verbal Reasoning
  o Numerical Ability
  o Abstract Reasoning
  o Space Relations
  o Mechanical Reasoning
  o Clerical Speed and Accuracy

       o   Language Usage

Topic: 123- Interest Inventories

- Strong Vocational Interest Blank and Kuder's Preference Record Vocational) are some of the interest inventories that can be used to measure differences among individuals in their interest.
- The modern version of strong vocational interest Bank is based on the typology (Holland Codes) of psychologist John L. Holland. The newly revised inventory consists of 291 items, each of which asks you to indicate your preference from three responses.
- The Kuder Preference Test, first published in 1938, was designed to measure the motivation of high school and college students. This form provided vocational guidance.

Topic: 124- Test of Personality

- The MMPI, Bells Adjustment Inventory, Projective tests like ―Rorschach Ink Blot test.‖
- Originally developed in the late 1930s, the test has been revised and updated several times to improve accuracy and validity. The MMPI-2 consists of 567 true-false questions and takes approximately 60 to 90 minutes to complete; the MMPI-2-RF has 338 true-false questions, taking 35 to 50 minutes to finish.
- Thematic Apperception test, and other questionnaires can be used to measure personality structure and adjustment, and difficulties of individuals.

Topic: 125- Competence Based Tests

- Tests of achievement, mostly teacher-made type, can be used to measure individual differences in academic achievement. Practically, these tests as are prepared by teachers do not measure the competence in learning various subjects. The competence-based tests are an improvement over the traditional tests, and are not difficult to prepare such tests. Once the teacher knows the learning competencies in various school subjects it becomes easy for the teacher to prepare such tests.
- It must be noted that scores obtained by a student in any one of the tests may not be a sure measure of his standing in the group. Scores on tests are influenced by a number of factors, internal and external operating at the time of taking the test. For this purpose, scores obtained by one test can be supplemented by scores obtained from other similar tests.

Topic: 126- Multiple Choice Tests or Essays

- One of the criticisms of the multiple-choice tests is that it rewards rote memorization rather than true understanding. This can certainly happen if the test is poorly designed, but when thoroughly researched and carefully prepared, the multiple choice test can assess a person's ability to apply concepts to problem solving situations.
- Rather than break up the units of knowledge and isolating the pieces, as the critics typically charge, a well-designed multiple choice test, such as SAT, demands that the students be able to understand concepts and bring facts together. Research evidence clearly shows that the SAT verbal score shares much in common with IQ, the correlation between them being an extremely high + 0.80.

Essay Questions:

- There is the fear that standardized tests based only on essay questions and writing samples may have an adverse effect on learning. Verbally adept but uninformed students may bluff

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their way through an essay exam. Similarly, the tactics used by some students or memorizing or rotting the topics of subjects also affects learning process.

- Essay type exams however, illuminate the student's thought process in more detail, as compared to multiple-choice tests. But for a teacher, with a large class of widely varying abilities, interests and needs may have to rely on the multiple choice tests. It not only ensures reliability of testing but also more importantly it permits free time to work with individual students.

Topic: 127- Computer Assisted Testing

- The computer age has led to a high-tech form of testing called CAT. (Computer Assisted Testing) Here, the individual sits at a computer keyboard, and the questions are presented on the screen.
- The testing becomes personalized since the testing is interactive with the computer, in effect custom designing the test to each student's skill level. For example, the question may get progressively more difficult until a level is reached. When a student begins to get the questions wrong, an easier set of questions suddenly appears. This branching of easier and harder questions called going ―up the ladder‖ or ―down the chute‖ continues until the student's true level of competence to reach.
- The educational testing services of USA are currently putting both the SAT and GRE (Graduate Record Exam) on a computer format.
- Many people believe that CAT is viable, cost-effective and a big improvement over paper and pencil testing.

Topic: 128- The Portfolio Approach

- Another testing technique, currently gaining in popularity is called the portfolio approach. Just as an aspiring artist or model carries a portfolio of past work to a prospective employer, so too does the student who selects examples of his or her best work over a term or even an entire year of study. It is said that the portfolio approach places more emphasis on a student's overall accomplishment than on the ability merely to score well on a single battery of tests. Typical portfolios include original poetry, plan, short stories, essay and art projects. Even in math, a student might produce a series of fractions, showing their relationships to decimals, or an arrangement of dice to illustrate probabilities, or even present an essay on the life of the Prophet ―Muhammad‖ (P.B.U.H).
- At the end of the year, the student hands over the portfolios to the teacher for evaluation. Teachers of the new Millennium should be made aware of this approach and should be given workshop preparation in learning this technique.
- The portfolio method can also be used to evaluate teachers, students and the curriculum itself. A portfolio that includes, for example, ―samples of student's teacher developed plans and materials, videotaped teaching episodes, and other teacher's reflections on his or her own teaching can provide direct evidence of what a teacher knows and can do.
- Whether, the portfolio approach proves to be as valuable as it promises is still in question, but there is no doubt that new testing methods will be employed as educational psychology operates in the 21st century. New testing procedures are on the horizon, procedures intended to bridge the gap between cognitive psychology and psychometric methods.

Topic: 129- Grade Equivalent Scores

- Grade equivalent scores are based on relating a given student's score on a test to the average scores found for other students in a particular grade, at the same time of years, and of roughly the same age.
- For example, assume that in September, a large, representative sample of their graders (III class, students) of the morning group, producer an average score of 30 on a certain arithmetic test. If a given student is then tested, and receives a score of 30, that child would be assigned a grade-equivalent score of 3.0 of the child did somewhat better than that and had a score of say 3.4, it would indicate a performance equal to a third grade student in the fourth month (December) of the school year. Grade equivalent scores are typically reported in tenths of a year, so that a score of 5.9 refers to the ninth month (June) of the fifth grade, and a score of 0.0 to the first day of kindergarten. Thus, the scores range from 0.0 (or sometimes ko) through 12.9, representing the thirteen years of school from kindergarten through grade 12. The first of September is given on the score as 0, whereas the end of September as 0.1, the end of October as 0.2 and on until the end of June as 0.9. a note of caution in this system is:
  a) Children do not all grow and develop at the same yearly rate, never mind the same monthly rate, so don't be overly concerned when a seemingly bright child suddenly under performs the norms of a few months, that same child may quickly catch up and even outperform the norms several months later.
  b) Don't be too quick to use a precocious child's high score in same area as a reason to have that child skip a grade or two. A third class (grader) might even get a grade equivalent of 7.0 on a given test. This doesn't mean that the child is now ready for a fast promotion to class-7th. What it does mean is that the third grader has certainly enquired third-grade material and infects has done as well as a seventh grader when measured on a third-grade test. However, there are many things the 7th grader has learned and is expected to know which are simply not even part of a third-grader's consciousness and which don't appear on a third grade test.

Topic: 130- Curriculum Testing

Virtually any curriculum that is more than five years old requires a thorough evaluation, this is most obvious in field such as science, but should be done in all areas. This type of testing shown answers the following:
  a) To what degree have the curriculum's goals been reached?
  b) Is the curriculum content appropriate in view of the mission's objectives.
  c) Has the instruction been truly based on the curriculum.
  d) Has the assessment measured the taught curriculum or planned.

Lecture: 29

(Topics: 131-138)

Topic: 131- Introduction of Intellectual Development: -

Topic: 132- Theories of intelligence-1: -

Topic: 133- Theories of intelligence-2: -

Topic: 134- Issues and controversies: -

Topic: 135- Measurement of Intelligence Individual intelligence tests: -

Topic: 136- Individual intelligence tests: -

Topic: 137- Group intelligence Tests-1: -

Topic: 138- Group intelligence Tests-2: -

Topic 131- Introduction of Intellectual Development

Intellectual development is related to cognitive abilities and capacities. Cognition is the study of the thought processes or activities of the human mind which lead to the acquisition of new knowledge and skills. It includes all types of mental processes such as attending, thinking, imaging, creating, and problem-solving to name a few. There is no consensus on what intelligence means. Generally, intelligence is thought of as a combination of different attributes, for example, the ability to solve problems and adapt and learn from experiences, creativity, and interpersonal skills. Some view intelligence as a single capacity while other believes that it is a collection of loosely related abilities. Still, others believe that intelligence is the ability to think in the abstract (Sattler, 2001). Intelligence is a complex trait that is influenced by both genetic and environmental factors. These varied beliefs have influenced the theoretical positions as well as the measures of intelligence.

Topic 132- Theories of Intelligence

There is a continuous debate among psychologists about whether intelligence is composed of a single capacity or a number of specific capacities. Spearman suggested that there is a general ability or intelligence (g) which is responsible for an individual's overall Success in different tasks. Robert Sternberg (2003), another multitrait theorist, suggests that intelligence is made up of three basic components hence the name, triarchic intelligence: Including analytical, creative, and practical components. The analytical component deals with a person's ability to solve problems by analyzing ideas and thinking critically. After reading the content, can you analyze it and state the pros and cons? If students are practiced daily, then they can analyze exams. In Pakistan, when we go for international tests, students got low scores in analytical because their reason is behind in the curriculum and they did in less practice. In the examination, we ask what it means. What is the definition of this? Can you describe this concept? Instead of asking can you analyze this theory or can you write implications of this theory in your classroom, can you write the pinpoint of weaknesses and strengths by giving the content you can ask to analyze it.

Creative intelligence refers to the ability to combine different ideas to form something novel by thinking outside of the box. After reading the content, can you analyze it and state the pros and cons? Creativity, I taught something to my students and then I asked them that create a new model. I taught you the theory and based on this theory can you create a new shape or new models that would be different from the model that you have already learned from the class but can you create

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something new? For example, you tell about the use of red color can develop new color by mixing two colors. This type of creativity is the symbol of creativity always creates the new ways and including innovations in dresses, and personalities whereas the practical intelligence is involved in applying knowledge and skills to the different kinds of environment. Practical components simplification Do you know how to apply this skill in the market? Do you know how to implicate this skill in the classroom? Sternberg believes that people's intelligence can be enhanced by providing them with opportunities to think analytically, creatively, and practically.

Topic 133- Theories of intelligence

In contrast to the view that intelligence is composed of a single or a small number of overarching abilities, Howard Gardner suggests that an individual may exhibit several types of intelligences. He categorized these intelligences into eight identifiable forms and argues that there could be possibly more than these forms. He divided intelligence into eight areas and he argued that in these areas always we can't confine intelligence as one entity but, it's a group of abilities and capacities in these eight areas a person will respond to the environment and then he or she will be considered intelligent. His list of intelligences includes the following: logical-mathematical, linguistic, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic. Related activities Logical-mathematical ability to understand and use numerical patterns, mathematical operations, reasoning and logic experimenting, calculating, solving logical puzzles, etc. A person is who knows about the reasons for anything and can explain it logically. They didn't accept blindly they proved by evidence. It's a skill of intelligence by symbol he is logical and mathematical does means he tries to approve scientifically for example 4 2+2=4.Linguistic Ability to acquire and use functions of language, express oneself, and comprehend others by reading, writing, playing word games, listening to and telling stories, etc. Intelligence is needed for language learning. Metalinguistic people are easily intelligent they learn the language and express them in front of others. Some scholars believe that intelligence is not affected language learning. Although children have the natural ability to learn language and do it without formal instructions, they do not learn language based on general intelligence. For example, children are learned native languages. Spatial Ability to understand, recognize and manipulate patterns, spaces, and objects navigating, designing, visualizing, drawing, solving jigsaw puzzles, etc. Musical ability is to appreciate and use the components of music, singing, creating tunes, humming, etc. Singers, dancers, etc. are born by birth with these abilities. Intelligent man can make their name in any field of life. Bodily-kinesthetic Ability to coordinate and use fine- and gross motor skills in a productive way dancing, running, cycling, swimming etc. Interpersonal Ability is to interact with others in a productive way. They can smartly intervene in the minds of the people and then he always wins their confidence and then people rely upon him and trust him that's why they want to choose to make him friends. Intrapersonal Ability to appreciate one's own self to guide one's own life. Naturalistic Ability is to appreciate the natural environment and understanding, working with, and caring for Mother Nature, etc.

Additional Reading:

This is further elaborated in Table as follows.

Gardner's Multiple Intelligences

Intelligence	Characteristics	Related activities
Logical mathematical	Ability to understand and use numerical patterns, mathematical operations, reasoning and logic.	Experimenting, calculating, solving logical puzzles etc.
Linguistic	Ability to acquire and use functions of language, express oneself and comprehend others.	Reading, writing, playing word games, listening to and telling stories etc.
Spatial	Ability to understand, recognize and manipulate patterns, spaces and objects	Navigating, designing, visualizing, drawing, solving jigsaw puzzles etc.
Musical	Ability to appreciate and use the components of music	Singing, creating tunes, humming etc.
Bodily kinesthetic	Ability to coordinate and use fine- and gross motor skills in a productive way	Dancing, running, cycling, swimming etc.
Interpersonal	Ability to interact with others in a productive way	Leading, organizing, socializing etc.
Intrapersonal	Ability to appreciate one's own self to guide one's own life	Goal-setting, organizing, planning, dreaming, meditation etc.
Naturalistic	Ability to appreciate the natural environment	Understanding, working with and caring for mother nature etc.

Topic 134- Issues and Controversies

One of the greatest controversies in the area of educational and developmental psychology is whether intelligence is an inherited ability (nature) or whether it can be developed by an individual's personal and contextual experiences (nurture) (see O'Donnell, et al., 2012). Early psychologists view intelligence as an inherent and fixed capacity that cannot be altered. This view is referred to as an entity view of intelligence. However, others argue that context plays an important role in developing intelligence and it can be improved with practice and a supportive environment. This view is known as the incremental view of intelligence.

Topic 135- Measurement of Intelligence Individual Intelligence Tests

Whether intelligence is an inherited ability (nature) or whether it can be developed by an individual's personal and contextual experiences (nurture). A number of standardized tests have been used to measure intelligence. Although these tests give information about a rather narrow

range of an individual's capabilities, they are popular with psychologists and educators because they provide a reasonably fair picture of future success. What elements make up human intelligence? Which areas have we measured? Intelligence is the name of analytical skill, a group of abilities, expressed by creativity; it's the tough task of how we measure these traits. These standardized tests measure analytical skills, Specific intelligence, General intelligence, sense of creativity, critical skills, application of thoughts, comprehension skills, etc. Howard Gardner suggests that an individual may exhibit several types of intelligence. Good intelligence tests are reliable, meaning that they are consistent over time, and also demonstrate validity, meaning that they measure intelligence rather than something else. Generally, intelligence tests have been divided into two broad categories, including individual and group intelligence tests (see Berk, 2013). A group test consists of tests that can be administered to a large group of people at one time. This is the opposite of an individual test, which is administered to one person at a time.

Topic 136- Individual Intelligence Tests

Stanford-Binet test and the Wechsler scales are the two most commonly used individual tests to measure intelligence. Alfred Binet constructed a measure of intelligence in 1905. He developed the concept of mental age (MA) which represents a child's mental development in relation to the other children. His test consisted of 30 items to assess mental processes and behaviors. Later, in 1912, William Stern introduced the intelligence quotient (IQ), which represents an individual's mental age (MA) divided by chronological age (CA) multiplied by 100. Thus, if a child of 10 had a mental age of 12 (that is performed on the test at the level of an average 12-year-old), then the child was assigned an IQ of (12/10) X 100. Binet's test has been revised and adapted several times. The latest version of the Stanford-Binet Intelligence Scale takes into account general intelligence along with complex mental processes including fluid intelligence, knowledge, quantitative reasoning, visual-spatial processing, and working memory. This test is successfully conducted with individuals ranging from 2 years to adulthood. A special version of the test, named, the Stanford-Binet Intelligence Scales for Early Childhood, includes fewer items with the verbal and non-verbal modes of testing for children aged between 2 to 7.3 years.

Another commonly employed intelligence test is called the Wechsler Intelligence Scale for Children IV (WISC-IV). It targets children aged between 6 to 16 years (Adolescence) and offers a measure of both general intelligence as well as other intellectual factors such as verbal reasoning, perceptual reasoning, working memory, and processing speed. 85 percent of intellectually disabled children receive IQ scores between 55 and 70. A score of 100 is considered average and a score above 110 to 120 consider intelligent. A high score usually above 130 means the person has a lot of *potential.* Here is detailed score ranges of IQ Test.50 to 60 intelligence these students don't take education in normal schools. For them made special schools and give training. They didn't take education. By using this yardstick, you can measure intelligence. Aptitude and achievement tests are also used as indicators of an individual's intelligence. Aptitude tests refer to the person's potential to perform a particular task in the future, whereas Achievement tests assess the actual knowledge and skill of the person.

Topic 137-138 Group Intelligence Tests

A rather quick and cost-effective way of measuring students' intelligence is to conduct the test in a group. This helps to reduce the related expenses and saves time. There are tests that are specifically designed for this purpose, for example, the Lorge-Thorndike Intelligence Test and the Otis-Lennon School Ability Test (OLSAT). However, group intelligence tests should be used with caution since they have certain limitations. For example, they do not allow the examiner to develop rapport and determine the student's level of anxiety. It is generally suggested that the scores obtained from group intelligence tests should be supplemented with information from other sources.

Lecture: 30

(Topics: 139-144)

Topic: 139- Intellectual Development from Infancy to Childhood-1: -

Topic: 140- Intellectual Development from Infancy to Childhood-2: -

Topic: 141- Intellectual development at elementary level: -

Topic: 142- Information Processing Approach: -

Topic: 143- Intellectual Characteristics of Learners of: Preschool to higher secondary level: -

Topic: 144- Role of Teacher in Intellectual Development: -

Topic 139-Intellectual Development from Infancy to Childhood

Child development refers to how your child grows and changes over time at different levels like physical maturity, Physical changes. It includes not only the physical changes that occur from infancy to adolescence but also seeks to better understand their mental growth, cognition, and intellectual capacities as well. Cognition refers to thinking and mind. Mind belongs to the intelligence. As human personality have four aspects physical, emotional, mental, and social. The balance of all these four aspects shows an intelligent man. Intelligent man who has the ability to control the situation in the field and he has social interactions and moral stability. For example, motivational speakers. A motivational speaker is a person who delivers speeches and presentations aimed at inspiring and motivating individuals. The most fundamental emotions, known as the basic emotions, are anger, happiness, and sadness. The fulfillment of three basic emotions makes the human happy and vice versa. Children gain cognitive maturity as they age. With time and experience, they advance their thinking skills and make transitions from simple to complex cognitive processes which add to their intelligence as well. It emphasizes the processes (cognition) rather than the products of mental activities (intelligence). It examines how children make cognitive and intellectual advancements from infancy to childhood. In doing so, it also highlights the cognitive characteristics

of learners at different periods of time. Children make cognitive and intellectual advancements from infancy to childhood.

Topic 140-Intellectual Development from Infancy to Childhood

Piaget Cognitive Theory

Piaget believed those children's cognitive development progresses through four stages which involve sensory-motor, preoperational, concrete operational, and formal operational periods.

These stages are treated as fixed and universal and represent a general sequence which is observable in all types of cognitive change.

1. The sensory-motor stage. The sensorimotor stage is characterized by the first two years of life during which infants think through their five senses or symbol. At the beginning of this stage, the sensory reflexes of the child serve to make up for his/her intelligence. The child engages in circular reactions (repeating chance behaviors) which help him/her to adapt to his/her surroundings. When you give instructions child will respond quickly.

ii. The preoperational stage.

At the preoperational stage, as children grow, they enter the preoperational stage (2 to 7 years) children have not yet developed the ability to think logically. Instead, they use their intuition and perception to understand the world and solve problems. For instance, children at this stage are unable to understand conservation, the idea that the amount of a substance remains the same regardless of its container's shape or how many pieces and shapes the substance is transformed into

iii. The concrete operational stage

The concrete operational stage occurs approximately between ages 7 and 11 and is characterized by children's ability to think logically about concrete objects. As children enter middle childhood, they accomplish a number of cognitive advancements. For example, children at this stage perform mental operations that follow logical rules. They are capable of thinking in more than one direction and are capable to see a problem from different angles (decent ratio). Consequently, they understand that certain characteristics remain the same even if they change their outward appearance (conservation). Their understanding of space is more precise when compared with the preschool children. They are capable of developing logical hierarchies and classification systems and can perform reversible actions which demonstrate that the children have now developed logical, flexible, and organized schemes than before.

iv. The formal operational stage.

The formal operational stage also called the post-operational stage occurs approximately between ages 11 years of age to own word. The stage of formal operations is similar to the stage of concrete operations in that both include the ability to engage in logical and systematic thinking. However, learners with formal operational thinking are able to apply the wide repertoire of cognitive abilities developed in the concrete operational stage to abstract and hypothetical situations. For example, learners can generate hypotheses and think systematically about the hypotheses. It is at this stage that learners are able to conduct ―thought experiments‖ and think in terms of metaphors, ironies, analogies, and satire. However, not all learners will reach the formal operational stage. Accompanying this stage, comes the individual's desire to get noticed, often referred to as adolescent

egocentrism. This is a heightened self-consciousness phase in which the growing adolescents tend to believe that others are interested in them in the same way as they are themselves

Vygotsky socio-cultural theory

Lev Vygotsky's socio-cultural approach builds upon the role of language and cultural tools in shaping human cognition and development. He believed that cultural influences, such as language, instruction, social interactions, etc have a profound influence on children's cognitive advancements.

Topic 141-Intellectual Development At Elementary Level

Elementary Level starts from 6 years or Children begin elementary school around age 4 to own word these years of childhood are called elementary years and elementary years have different stages and levels in different countries. Children's cognitive development undergoes rapid changes during the early years of school. A number of activities and strategies may help the elementary school child to make cognitive progress at this stage.

These include, for example, allowing children to experiment, encouraging discovery learning, reading with the children, and encouraging them to share ideas and opinions by Providing opportunities for participation, such as through group discussions, brainstorming sessions, or team-building activities, which can encourage people to share their ideas and opinions and asking them to make comparisons, classify and categorize objects, things or events. What are the characteristics of mammals? Which animals eat meat? Which animals eat both meat and grass? Using pictures to classify objects can be especially useful for younger students or students who are visual learners, as it can help them develop their observation and categorization skills and engaging them in drama, role-playing and asking them to justify their answers and actions.

Topic 142-Information Processing Approach

How the mind processes information, which is a popular cognitive approach to understanding how people acquire, store, and recall new information. The information processing approach presents another major perspective that helps us to understand cognitive development and its link with intelligence. This approach views the human brain as an active information processing system, like a computer machine. The human mind is analogous to a computer in that new information can be input, processed, stored, and later retrieved. Short-term memory and long-term memory are two types of memory storage in the brain. Short-term memory is a memory system that works as temporary storage for new information. Long-term memory refers to the storage of information in the brain for an extended period of time, ranging from hours to years. It is the type of memory that allows us to recall events, facts, and experiences from the past. It examines how information enters a human mind, and how is it stored, processed, and retrieved when needed. It emphasizes two major cognitive processes including memory and thinking. This approach views the human brain as an active information-processing system. Overall, it is argued that children develop and refine their mechanisms to acquire process, store and work with increasingly complex information and skills over time. In doing so, they develop improved cognitive resources, that is, the capacity and speed of processing information. This improved ability is further linked to better memory and problem-solving skills.

Topic143-Intellectual Characteristics of Learners of Preschool to Higher Secondary Level

Preschool Learners

Preschool children typically develop the ability to recognize previously seen objects by the age of 2-3 years. This is an important cognitive skill that allows them to make sense of their environment and learn new things. As children grow and develop, they become better at recognizing objects and categorizing them based on their similarities and differences. Preschool children also develop visual preferences for certain types of objects, colors, and shapes. These preferences are often based on their individual experiences and interests. For example, a child who loves animals may have a preference for toys that depict animals or books about animals. Eye-hand coordination is the ability to use visual information to guide hand movements. Preschool children develop this skill by engaging in activities that require them to manipulate objects with their hands, such as playing with blocks or drawing with crayons.

Distractibility and short attention span are common characteristics of preschool-aged children. Preschool children are easily distracted by their surroundings, especially when there are multiple stimuli competing for their attention. They may get sidetracked by interesting sounds, sights, or people, and may have difficulty focusing on a specific task or activity for an extended period of time. This is because their brains are still developing and they have not yet fully developed their ability to filter out distractions. Preschool children also have a limited attention span, which means they can only focus on a task or activity for a short amount of time before becoming restless or bored. This is normal and expected at this age, as their brains are still developing and they are constantly exploring and learning about their environment. It's important to keep in mind that variability in performance from one assessment to the next is normal in preschool-aged children. It's also important to use multiple measures to evaluate a child's development, rather than relying on a single assessment.

Topic 144: Higher Secondary Level

At the higher secondary level, learners typically demonstrate a range of intellectual characteristics, which can be broadly categorized as follows: Students are typically capable of more advanced levels of abstract reasoning and critical thinking. They are able to analyze complex information, draw connections between ideas, and evaluate arguments based on evidence and logic.

Drawing logical inferences from verbal descriptions, and identifying similarities between opposite concepts. Identifying differences between similar abstract words, interpreting proverbs, and breaking down complex geometric figure into their component part

Topic144- Role of Teacher in Intellectual Development

The role of the teacher in supporting learners' intellectual development involves creating a supportive and engaging learning environment that encourages exploration, inquiry, critical thinking, creativity, and play. By providing guidance, feedback, and support, teachers can help learners develop the skills and knowledge they need to succeed academically and in life.

Teachers can provide real-world examples of addition to help students understand the practical applications of the concept. For example, students can learn to add up the two apples, what will be the result after adding the two apples and oranges? and 2+2= 4. . Vygotsky's introduced the concepts of the zone of proximal development (ZPD) and scaffolding. Scaffolding refers to the process by which a teacher provides support and guidance to help learners develop their skills and knowledge. This can involve breaking down complex tasks into more manageable steps, providing feedback and reinforcement, and modeling strategies and techniques. Teachers can encourage learners to explore and inquire about the world around them by providing opportunities for hands-on, experiential learning. This can involve incorporating activities that promote Teachers can encourage learners to develop their creativity by providing opportunities for self-expression and creative exploration. ZPD refers to certain cognitive abilities that are in the process of developing, and that can be achieved with support from an adult or a capable peer.

This can involve incorporating activities that promote creativity, such as art projects, creative writing assignments, and music or drama performances. Play is an important part of intellectual development, and teachers can support learners' play in a variety of ways. This can involve providing a range of play materials and opportunities for different types of play, such as object play, pretend play, social play, and locomotors play. Teachers can also participate in play with learners to provide guidance and support.

Lecture: 31

(Topics: 145-151)

Topic: 145- Forgetfulness: -

Topic: 146- Theories of forgetfulness: -

Topic: 147- Factors affecting transfer of learning: -

Topic: 148- Metacognition: -

Topic: 149- Transfer of Learning and instruction: -

Topic: 150- Meaning and Nature of Learning: -

Topic: 151- Learning difficulties: -

Topic 145- Forgetfulness

        Forgetting (retention loss) refers to the apparent loss of information already encoded and stored in an individual's long-term memory. It is a spontaneous or gradual process in which old memories are unable to be recalled from memory storage. It is subject to delicately balanced

optimization that ensures that relevant memories recalled. Forgetting can be reduced by repetition and more elaborate cognitive processing of information. Reviewing information in ways that involve active retrieval seems to slow the rate of forgetting. Forgetting functions (amount remembered as a function of time since an event was first experienced) have been extensively analyzed. There are many reasons why people may experience forgetfulness. Some of the most common reasons include: Stress, anxiety, depression can cause forgetfulness, confusion, difficulty concentrating, and other problems that disrupt daily activities For example, an academic anxiety. **Alcoholism:** Chronic alcoholism can seriously impair mental abilities. **Lack of Sleep**: Sleep is an important for memory consolidation, so not getting enough sleep can lead to forgetfulness. So, it is disturb your nervous system and memory loss. You need to fulfill your sleep daily and you should set mind clock .it has two types Body and mind clock. It is possible that if you have set your mind clock to a regular sleep schedule of going to bed at 9 o'clock, your body may start to feel naturally sleepy or tired around that time. **Medications:** Some medications, such as those used to treat anxiety and depression, can cause memory problems as a side effect. **Fatigue and lack of exercise** can contribute to forgetfulness because they can affect the functioning of the brain. When we are fatigued, our ability to concentrate and remember things can be impaired. Exercise is important for brain health because it helps to increase blood flow to the brain, which can improve cognitive function. Following a routine can help with forgetfulness because it can help to establish habits and reduce the need for relying on memory. **Focusing on one thing at a time** can also be helpful for memory because it allows us to give our full attention to the task at hand, which can improve our ability to remember it later. **Creating memory triggers** can be a useful technique for improving memory. This involves associating new information with something that is already familiar to us in order to make it easier to remember. For example, you to put papers in the bag and your bag is trigger .You can create triggers and you can memorize things by triggers. You could set a reminder on your phone or computer to remind you. This can help to create a mental connection that makes it easier to recall the information later.

Topic 146-Theories of Forgetfulness

Different schools of thoughts explained why we don't able to memorize the things and how do we get forgetfulness? These five theories include the displacement theory, decay theory, interference theory, retrieval failure theory, and consolidation theory. Throughout the years, psychologists have created five theories of forgetting in an attempt to explain which environmental factors or cognitive abilities decay factors from which we don't remember and why memories slip from our memories. Tulving (1974) argued that information would be more readily retrieved if the cues present when the information was encoded were also present when its retrieval is required. The **Displacement Theory of forgetfulness** is a theory that suggests that forgetting occurs when new information interferes with the ability to recall old information. According to this theory, when new information is learned, it can displace or push out old information from memory, making it more difficult to recall. **Cue-dependent forgetting:** Cue-dependent forgetting (also, context-dependent forgetting) or retrieval failure, is the failure to recall a memory due to missing stimuli or cues that were present at the time the memory was encoded. **Trace decay theory** states that forgetting occur

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occurs as a result of the automatic decay or fading of the memory trace. Trace decay theory focuses on time and the limited duration of short term memory. The duration of short-term memory seems to be 30 seconds. When STM is 'full', new information displaces or 'pushes out' old information and takes its place. Forgetting occurs because of interference from other memories.

Topic 147-Factors Affecting Transfer of Learning

These are following factors that affect the transfer of learning. Either, it is heredity factors or environmental factors that disturb to transfer of learning. One learning is coming or one learning is stored in your mind already and then you are learning something new and then the learning is coming from another source and you have already information about one topic so you know these type of learning can create an accident .Accident means to forget information or to create problem in transferring memory or learning.

I. **Impact of Culture**: Culture can influence the way we learn and process information. For example, cultural differences in communication styles or learning preferences can affect how effectively we transfer learning from one context to another.
II. **Learning Is Dynamic:** Learning is not a one-time event, but rather a dynamic process that involves ongoing practice and refinement of skills. This means that the transfer of learning depends not only on the initial learning context, but also on subsequent experiences and opportunities to use and apply the learning.
III. **Mental Models:** Mental models are cognitive frameworks that help us to understand and interpret information. They can play a role in the transfer of learning by influencing how we approach new situations and apply what we have learned.
IV. **Learning Strategies:** How you are learning? How your teacher is giving to information? Learning strategies are techniques that we use to acquire and retain new information. The use of effective learning strategies can improve the transfer of learning by helping us to generalize and apply what we have learned in new situations.
V. **Motivation to Learn**: Motivation to learn can influence the transfer of learning by affecting our willingness to engage with new information and apply what we have learned in different contexts. Motivation has two types Intrinsic or extrinsic motivation.
VI. **The Role of Technology**: Technology can play a role in the transfer of learning by providing opportunities for practice, and collaboration across different learning contexts.
VII. **Positive transfer:** This usually occurs when the two skills in question are similar in some way.
VIII. **Negative Transfer**: This occurs when having learnt one skill, makes learning the second skill more difficult.

Topic 148-Metacognition

Metacognition is the skill of thinking about your thinking, thinking about your knowing, thinking about your information, and thinking about your actions. Metacognition is, put simply, thinking about one's thinking. What did you do in the present or past? You will think what I do? Is it right or wrong? Is it positive or negative? So, when you are analyzing your actions and thinking is called metacognition. More precisely, it refers to the processes used to plan, monitor, and assess one's understanding and performance. Metacognition includes a critical awareness of a) one's thinking and learning and b) oneself as a thinker and learner. You are learning something and you are also thinking about it. What I am doing? What I am learning? This is not good for me. This is good for

me. So, when you are questioning yourself? When you're thinking about any action and behavior or any thinking is called metacognition. Metacognition also involves knowing yourself as a learner; that, knows your strengths and weaknesses as a learner. For example, if you can explain what your strengths are in academic writing, exam taking, or other types of academic tasks, and then you are Meta cognitively aware.

Topic 149- Transfer of Learning and Instruction:-

Transfer of Learning (Training) is a process of applying or carrying over the knowledge, skills, habits, attitudes, emotions, sleeping patterns or other responses from one training situation (in which they were initially acquired) to another training situation. How the parents are teaching their children to get these patterns from them? How the teachers is teaching their students to get transfer of learning and how it can be possible in a better or positive way. Thereby similarities and analogies between previous and actual learning content and processes may play a crucial role. Three types of Transfer of leaning are **lateral transfer, sequential transfer and vertical transfer.**

I.   **Lateral transfer** occurs when learners are able to solve different but similar problems of equal complexity as soon as they have learned to solve one of them.

II.   **Sequential transfer** happens in one and the same context.

III. **Vertical transfer**, on the other hand, requires that learning at a lower level must be transferred to a higher level of cognitive skills with the help of previously acquired knowledge.

Topic 150 - Meaning and Nature of Learning:-

Do you think everything that you are getting is learning? Whatever you are rote memorization is that learning. You are storing the information into the mind that is learning and you think you that learning when you are reading a book

The individual is constantly interacting with and influenced by the environment. This experience makes him to change or modify his behavior in order to deal effectively with it. Learning means you are getting information and according to information you are modifying your behavior. You learnt that aggressiveness is not a good habit. So, did you change your behavior? If you change your behavior then that is called learning. For Example, we give to get understanding of learning that there is a hot cattle and then when you just touch it accidentally, then you will burn your hand next time you will be careful and you will not touch the hot cattle it

is called learning. Whenever, you will get some negative reward then you will not repeated the action. When you will bring change into your personality and then you will again repeat it because it was positive for you. Basically, modification of the behavior is called learning. Therefore, learning is a change in behavior, influenced by previous behavior. As stated above the skills, knowledge, habits, attitudes, interests and other personality characteristics are all the result of learning. So, the meaning of learning does not mean that you are getting information blindly and you are storing it into your mind and whenever you need then you are just getting it back this is not called the learning that you have the degree of MA, M.Phil., PhD you think that you are learner but you few didn't change yourself that you are highly qualified and you your habits are same showing that you are uneducated .you can't control aggressiveness you can't behave well with each other people you are not honest at this stage.

Topic 151-Learning Difficulties:-

Learning means to learn and to modify the behavior. So what are the difficulties that people are facing and then they are not able to modify behavior. The individual is constantly interacting with and influenced by the environment. For example Dyslexia, dysgraphia and dyscalculia are examples of learning disorders. Due to malfunction of brain students can't respond correctly. Dyslexia is a learning disability that affects reading and language processing. People with dyslexia may have difficulty decoding words, recognizing sight words, and comprehending written material. For example teacher asked the students why you didn't read the words correctly so the child responded that words are dancing that he actually could not concentrate on these words. Dyslexia can cause difficulty with fine motor skills, which can affect handwriting ability. Inconsistent letter formation, Irregular letter size and spacing, Difficulty with letter placement, Learning disabilities are due to genetic and/or neurobiological factors that alter brain functioning in a manner which affects. One or more cognitive processes related to learning. Learning difficulties are problems with reading, writing and/or math's. Learning disorders are specific, serious and ongoing problems with reading, writing and/or math's, which are diagnosed by health professionals. For tackle the learning disorders teacher should be concentrate on student's potential and explore the reasons why students are not taking interest or not showing good performance in academics.

Lecture: 32

(Topics: 152-160)

Topic: 152- Sources and Types of Individual Differences: -

Topic: 153- Types of Individual Differences: -

Topic: 154- Exceptional Children: -

Topic: 155- Types of Exceptional Children: -

Topic: 156- Gifted and talented children: -

Topic: 157- Characteristics of Gifted and talented children: -

Topic: 158- Issues of gifted children-1: -

Topic: 159- Issues of gifted children-2: -

Topic: 160- Education of gifted Children: -

Topic 152 - Sources and Types of Individual Differences:-

Individual differences refer to the ways in which people differ from one another in terms of their characteristics, traits, attitude, aptitude, physical abilities, mental abilities, social abilities, liking and disliking ,interests activities, choices, behaviors and that is normal or natural. The individual is constantly interacting with and influenced by the environment. Environment consists of physical, intellectual, social, moral, political, economic and cultural forces. All these forces cause individual differences. In addition to physical resources, access to educational and cultural resources can also influence individual differences. Individuals who grow up in environments with limited access to quality education and cultural experiences may have less opportunity to develop their cognitive abilities, creativity, and social skills, which can impact their overall abilities and behaviors. Modern psychologists believe that individual differences are caused by both heredity and environment. Individuals not only differ among themselves with respect to a specific trait but differences may also be noticed within the same individual when he is studied in respect of various traits.

Topic 153-Types of Individual Differences:-

Individual differences are normal. Everybody has differences in attitude, intelligence, choices aptitude, habits, abilities, foods etc these differences are called normal differences because these differences are not strange. That If somebody is choosing something else and the other person is choosing something else and then these differences are called normal and God has created all

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human beings differently so we should accept these differences and what the reasons are behind to make people different. So, these reasons or factors are many or multiple. How many these factors are affecting those differences in personality of theses humans? Heredity factors are present from birth, as they are determined by an individual's genetic makeup. Even siblings are different from each other in term of their personalities .Psychologically speaking; a person's environment consists of sum total of stimulation which he receives from conception until his death. Influence of caste, race and nation: Caste, race, and nation are social constructs that can influence individual differences in a number of ways. These constructs are often associated with cultural norms, beliefs, and values that can shape individuals' experiences and opportunities in life.

Temperament and emotional stability: Everybody has different attitude and aptitude by birth or through environment. Different people at one home they are getting different environment, different attitude. If the elder son gets more attention, the middle son is getting lower attention and the youngster's not getting as much attention then these things will create differences in their personality's .Temperament can influence individual differences by shaping individuals' tendencies towards certain behaviors and experiences. Emotional stability refers to an individual's ability to manage and regulate their emotions in response to stressors and challenges. Emotional stability can influence individual differences by shaping individuals' responses to stress and adversity. Individuals have different goals, different interests, different emotional problems and different abilities. One child wants to be pilot other child wants to be a doctor, layer or teacher so everybody has different choices. So, these choices can be through environment, natural abilities or aptitude .Because a person has two types of intelligence general intelligence or aptitude and specific intelligence. Specific attitude means that he has naturally aptitude to become a musician or actor, painter. People also behave differently in their environment.

Topic 154-Exceptional Children:-

Exceptional children mean children who differ markedly from their peers to the degree that special facilities, equipment, or methods are required to make their educational program effective. Such children constitute about 2 to 7 percent of the average population. These children are more neglected in terms of special provisions, particularly in the elementary school, than are children of any other area of exceptionality. It is true that in Pakistan, the educational budget for normal students is often limited, which can make it challenging to allocate resources for exceptional children. However, there are several strategies that can be used to address this challenge and ensure that exceptional children have access to the support and resources they need to succeed in school. In Pakistan, there are a variety of indigenous tests and assessment tools that can be used to diagnose exceptional children. Once a child has been identified as exceptional, it is important for teachers to receive specialized training in order to provide appropriate accommodations and support.

Topic 155-Types of Exceptional Children:-

Exceptional children are special children they have some exception of intelligence, attitude, aptitude etc. Exceptions can be positive or negative. There are multiple groups comprising the

intellectually exceptional children. **Gifted child** is the child with superior intellect. Gifted children exceed, in terms of intelligence generally fall within the range between 1Q, 130 and 180 or above that is blessing from God that we have gifted children. The **Physically Handicapped** children are those with impaired vision, children with impaired hearing, and children with speech handicaps, children with orthopedic and neurological impairment. The **emotionally disturbed children** include those with behavior problems and those who are socially maladjusted or the delinquents. They cannot control their behavior positively and they always show behavioral trauma. Misbehavior is very common in these children. The **Multi-Handicapped** refers to individuals who have multiple disabilities or impairments that affect their ability to function in everyday life. These disabilities may be physical, cognitive, sensory, or a combination of these, and can range in severity from mild to profound. They may be at the time suffering from epilepsy .They may have cerebral palsy with mental retardation and epilepsy. They may be deaf, blind and mentally handicapped. They may be mentally defective, speech handicapped and suffer at the same time from behavior disturbances.

Topic 156-Gifted and Talented Children

Gagne (1985, 2000) defines **gifted children** as those who have high levels of innate ability, in any domain of human ability, that places them within the top 10 percent of their age-peers—even if their high potential is not yet being demonstrated as high performance. **Talented children**, by contrast, are those whose abilities have already been translated into achievements, and who are currently performing at a level that places them within the top 10 percent of their age-peers. Gifts are natural abilities whereas talents are systematically developed skills.

Topic 157-Characteristics of Gifted and Talented Children

The have difference in their characteristics of both gifted and talented children. But general characteristics are more intelligent, not followers, system makers, master mind and creating new ideas etc. Ability to comprehend material several grade levels above their age peers. Surprising emotional depth and sensitivity at a young age. They are very sensitive and more emotional disturbance because they are not those people who can adjust well with the society whatever the society is introducing the system and they will agree and fit in because they always see that many wrong things are going in the society so they always think about .They are actually deep thinker and bring new solutions for the problems. They are actually the blessings for the society and strong sense of curiosity, enthusiastic about unique interests and topics, quirky or mature sense of humor, creative thinking, leadership ability, talents in the fine arts, and psychomotor abilities.

Topic 158- Issues of Gifted Children 1:-

Gifted children can face a wide range of issues and challenges related to their exceptional abilities and achievements.

I. **Self-Esteem Issues**: Gifted children may struggle with self-esteem issues, especially if they feel misunderstood or out of place among their peers.
II. **Guilt:** They may feel guilty about their talents or accomplishments, especially if they feel that they have not earned them or that they are not using them to their full potential.
III. **Perfectionism:** They may struggle with perfectionism, setting high standards for themselves that can be difficult to meet and leading to feelings of failure or anxiety.
IV. **Control Issues:** They may struggle with control issues, especially if they feel that their environment or circumstances are not conducive to their talents or interests.
V. **Unrealistic Expectations:** Gifted children may face unrealistic expectations from others, including parents, teachers, and peers, which can lead to pressure and stress. its need hard work and team cooperation.
VI. **Impatience:** They may struggle with impatience, especially if they feel that they are not being challenged or stimulated enough in their regular environment.
VII. **Friendship Issues:** They may struggle with forming friendships with peers who do not share their interests or abilities, leading to feelings of isolation or loneliness.
VIII. **Attention and Organization Issues:** They may struggle with attention and organization issues, especially if they have a lot of interests or commitments that they find difficult to manage.
IX. **Being bullied at times or even have to combat depression:** Gifted children may be at a higher risk of being bullied or experiencing depression, especially if they feel misunderstood or marginalized by their peers or environment.
X. **Talk them down:** They may engage in negative self-talk, especially if they feel that they are not living up to their own or others' expectations.

Topic 159-Issues of Gifted Children 2:-

Mood Swings: Gifted children may experience mood swings, especially if they are feeling frustrated or unchallenged in their environment. **Erratic Habits:** Gifted children may exhibit erratic habits, such as staying up late to read or pursue their interests, or becoming obsessed with a particular subject or activity. **Social difficulties, Feelings of sadness:** They may experience feelings of sadness or depression, especially if they feel that they are not living up to their own or others' expectations. **Becoming disengaged:** They became disengaged, bored if they are not challenged or stimulated enough in their environment which can lead towards the feelings of frustration or restlessness. **Overreacts to situations:** They may overreact to the situations especially when they felt that their abilities or talents are being overlooked or undervalued. **Highly sensitive, passionate:** These children may be highly sensitive and passionate about their interests, which can lead to intense emotional reactions or responses. They are very keen observer. **Observes across boundaries, makes connections:** They may exhibit a strong ability to observe across boundaries and make connections they always think that this universe is created and why this universe is created and many school of thought we have and those school of thoughts explain with different point of view about the creation of God, human and universe. What is the purpose behind this? Many scientists have used too many ways for exploration of the world.

Topic 160- Education of Gifted Children

Gifted education (also known as gifted and talented education (GATE), talented and gifted programs (TAG) or G/T education is a broad group of special practices, procedures, and theories used in the education of children who have been identified as gifted or talented. Inclusive education classes are a good option for gifted children, as they provide opportunities for these children to interact and learn alongside their peers with a range of abilities and disabilities. Much can be accomplished with existing resources. A gifted student should have time to purse topics more deeply than their classmates. Cluster of schools should combine their gifted children regularly for special enrichment programme. The key to educating the gifted children is to formulate individual programme for them so that they encounter daily challenges. Such education requires teachers who have received special training that enables them to work with gifted students and engage the students in problem solving activities. Kids are more likely to reach their potential when challenged academically. Raises level of Instruction, acceleration and ability grouping the level of instruction should be change for theses children's. Teacher introduces the projects and assignment or they work in a group. Students find peers with similar intellectual pursuits and may fit in better than in a general education classroom. Gifted programs help students with academic achievement, socialization, and future success. While teachers can sometimes identify gifted children through their questioning patterns or academic performance, it is important to note that giftedness can manifest in many different ways and may not always be immediately apparent in a classroom setting.

Lecture: 33

(Topics: 161-165)

Topic: 161- Attention deficit hyperactivity disorder: -

Topic: 162- Differences in perceptions: ADHD versus high activity: -

Topic: 163- Causes of ADHD: -

Topic: 164- Teaching students with ADHD-1: -

Topic: 165- Teaching students with ADHD-2: -

Topic 161-Attention Deficit Hyperactivity Disorder

Attention Deficit Hyperactivity Disorder is a problem with sustaining attention and controlling impulses. In the classroom, students with ADHD may exhibit a range of behaviors in the classroom that can make it difficult for them to learn and for others to teach or learn around them its include fidget and squirm a lot, or have trouble remaining seated, or continually get distracted and off task, or have trouble waiting for a turn, or blurt out answers and comments. The student may shift continually from one activity to another, or have trouble playing quietly, or talk excessively without listening to others or the student may misplace things and seem generally disorganized. It is important for teachers to recognize that these behaviors are not intentional and are a result of the

student's neurological differences. Teachers can help to support students with ADHD by providing clear expectations, and positive reinforcement.

Additional Reading:-

Students with ADD experience persistent limitations in their attention span, are highly distractible, have difficulty in concentrating and finishing tasks, and are impulsive. When these conditions are accompanied by hyperactivity, the disorder is called attention-dficit/hyperactivity disorder (ADHD). Experts estimate a correlation between 25% and 70% for students with ADHD and learning disabilities. Many students with ADHD are treated with medication such as Ritalin, concerta, or metadate CD, which help them focus better in the classroom. Yet the use of behavioral therapy, which is aimed at changing behavior and thought patterns to learn how to relate to others and succeed, can significantly reduce or even eliminate the need for medication (Pelham et al., 2005). ADHD is not listed as a distinct disability category in IDEA. However, students with ADHD may qualify for special education services under the category of —other health impairments‖ in IDEA or under Section 504 of the Rehabilitation Act.

Topic 162- Differences in Perceptions: ADHD Versus High Activity

A student with only a mild or occasional tendency to be restless, for example, may fit in well outdoors playing soccer, but feel unusually restless indoors during class. It also should not be surprising that teachers sometimes mistake a student who is merely rather active for a student with ADHD, since any tendency to be physically active may contribute to problems with classroom management. When teachers and educators compare students to one another, it can create a competitive and stressful learning environment, where students may feel pressured to perform at a certain level or meet certain expectations. This can lead to negative outcomes, such as reduced motivation, increased anxiety, and decreased academic performance.

Topic 163-Causes of ADHD

It is important to consider both genetic and environmental factors, as both can play a role in the development and expression of the disorder. Genetic factors are inherited from our parents and determine many of our physical and behavioral traits. Cosmetic surgery has indeed advanced significantly in recent decades, with the development of new techniques and technologies that allow for more precise and effective procedures. Cosmetic surgery is primarily focused on changing the appearance of a person's physical features, such as the shape or size of their nose, or other body parts. Research shows that ADHD tends to run in families, with children‖ especially boys‖ of parents, who had ADHD somewhat more likely than usual to experience the condition themselves,

It is possible that parents who formerly had ADHD may raise their children more strictly in an effort to prevent their own condition in their children; yet their strictness, ironically, may trigger a bit more tendency, rather than less, toward the restless distractibility characteristic of ADHD. On the other hand (or is it —on the third hand"?), the parents' strictness may also be a result, as well as a cause of, a child's restlessness.

Topic 164-Teaching Students with ADHD 1:-

Students with ADHD may face unique challenges in the classroom, but with the right strategies and support, they can succeed academically and socially. Teachers should give extra attention and support to students with ADHD. When a teacher asks questions or engages with students in a positive and supportive way, it can help students with ADHD feel more valued. Being a teacher I always pay attention to those children's who back benchers. When students' exhibits sever attention-deficit, some medicines are advised. Medicines like Ritalin can reduce ADHD. We cannot use these medicines for a long time. In severe cases we may advice medicines. Teacher can use the technique of clear rules and procedures, for example, can reduce the ―noise‖ or chaotic quality in the child's classroom life significantly. Teacher can help by making lists of tasks or of steps in long tasks. It can help to divide focused work into small, short sessions rather than grouping it into single, longer sessions. The goal for teachers, in essence, is to build the student's metacognitive capacity, while at the same time, of course, treating the student with respect.

Topic 165- Teaching Students with ADHD 2:-

Which type of strategies that we can use with ADHD students? Sometimes a classmate can be enlisted to model slower, more reflective styles of working, but in ways that do not imply undue criticism of the student with ADHD. The more reflective student can complete a set of math problems, for example, while explaining what he or she is thinking about while doing the work. Sometimes the teacher can help by making lists of tasks or of steps in long tasks. It can help to divide focused work into small, short sessions rather than grouping it into single, longer sessions for examples presentations, assignments.

Lecture: 34

(Topics: 166-171)

Topic: 166- Intellectual disabilities: -

Topic: 167- Levels of support for individuals with intellectual disabilities-1: -

Topic: 168- Levels of support for individuals with intellectual disabilities-2: -

Topic: 169- Teaching students with intellectual disabilities-1: -

Topic: 170- Teaching students with intellectual disabilities-2: -

Topic: 171- Teaching students with intellectual disabilities-3: -

Topic 166-Intellectual Disabilities

An intellectual disability is a significant limitation in a student's cognitive functioning and daily adaptive behaviors. An IQ level below average is generally considered to be in the range of intellectual disability. The student may have limited language or impaired speech and may not perform well academically and students with intellectual disabilities have impairments to learning that are broader and more significant. They score poorly on standardized tests of intelligence.

Topic 167-Levels of support for Individuals with Intellectual Disabilities1:-

Disability is mild, teachers sometimes refer to a student with the disability simply as a slow learner, particularly if the student has no formal, special supports for the disability, such as a teaching assistant hired specifically to assist the student. A shadow teacher, also known as a one-on-one aide or paraprofessional, is a trained professional who provides individualized support to a student with special needs in an educational setting. In the context of intellectual disabilities, a shadow teacher can be particularly helpful in providing additional support and accommodations to students who may require more personalized attention and assistance in the classroom. If the disability is more marked, then the student is more likely to be referred to either as having an intellectual disability or as having mental retardation. They give training to students with the help of pictures, videos, activities, tasks and reinforcement. Patience and time duration are important for these children. Don't put the pressure on them. Work should be divided into segments and motivate them.

Topic 168-Levels of support for Individuals with Intellectual Disabilities-2:-

The level of support needed for a child with an intellectual disability will depend on the individual needs of the child. Individual daily plans for individuals with intellectual disabilities can help ensure that their daily needs are met and that they are able to participate in activities and routines that promote their overall well-being. These are some examples of daily plans for specific needs: Toilet training, food intake etc. Teacher devised individual plan according to the levels of severity of impairment (mild, moderate and severe). Sign language can be a valuable tool in supporting the communication and learning needs of students with intellectual disabilities. Sign language is a visual language that uses hand gestures, facial expressions, and body language to convey meaning, which can be helpful for individuals with language and communication challenges. With the passage of time and age intellectual impairments are less; with maturity improvement can also see. Traditionally the intensity or ―amount‖ of the disability was defined by scores on a standardized test of scholastic aptitude (or ―IQ test‖), with lower scores indicating more severe disability.

Topic 169- Teaching Students with Intellectual Disabilities-1:-

Those students who have intellectual disabilities they are called special children. They are placed in special schools. So, they always need to special counseling from their teachers and teachers are also expert in special education .They are expert in dealing all types of students. Intellectual

disabilities of those students who have lower IQ and adaptability issues and they have different type of issues that sometime you know the ratio and value in the amount of severity .It always depends on the condition of the children that what kind of behavior they are showing if they are going through lower IQ score and they have below the average IQ quotient they belong 50 to 60 intellectual quotient and they behaving like very weak in emotions, feeling, actions. So, teachers should be very expert to deal with these students and they know how to deal with these students and how the give them to task and how to ask them to follow these task and what type of activities teachers are going to introduce and how these students will be respond. Because, these students will response slow so teachers must be known that and should be patience to deal with these students. These are the characteristics that teachers must have to deal with these students .When we talk about intellectual disability it means that the student has three types of deficiencies are intelligence deficiency and social skill deficiency and adjustment with the environment . So, these three types of deficiencies the teacher need to tackle with. The other issue students of intellectual disability they are facing actually. They are facing with the intelligence quotient with different amounts that they have the intelligence they have three or four types of groups that below 100 quotient when students have intellectual disability and if they belong to the group of intellectual disability between the 80 and 100 intelligence level and they can be educate in the special schools and the need less counseling but those students who have below this group IQ level and they belong to 50 to 60 or 60 to 70 or 80 intelligence group then they need to more counseling and the will show severe behavioral problems and very slow response .So, these things teacher must know that how the can diagnose these intellectual disabilities by using standardized intelligence test and by using standardized social skill test and then they will come to know the level of deficiencies students showing actually.

Students with limited needs, occasional or regular contact with professionals may be necessary. For students with extensive needs, regular contact with professionals is essential. This could involve daily or weekly meetings with a special education teacher or therapist to provide ongoing support and guidance. Students with pervasive needs, continuous contact and monitoring by professionals are necessary. This could involve having a team of professionals working with the student to provide ongoing support and intervention. According the situation of the child it should be alter. Giving more time and practice than usual and Include the student deliberately in group activities. Learn social and academic skill and also sense of usefulness.

Topic 170-Teaching Students with Intellectual Disabilities-2:-

Students those belong to the intellectual disability group so how teachers can teach them by using different strategies. These special children need special time and repetition of the task and also the patience of the teacher needs actually. Adaptive and functional skills, being a useful member of the society according to the intelligence we manage some activities which includes eating the food independently, toilet training etc. We can control the aggression of that child by medication or engage them in group tasks. In teaching addition and subtraction, for example, you can create examples about the purchasing of common familiar objects (e.g. food) and about the need to make or receive change for the purchases. Similar considerations apply to learning new reading or oral

language vocabulary and try encouraging the student to learn words that are especially useful to the student's own life.

Topic: 171- Teaching students with intellectual disabilities-3: -

Adaptive and functional skills are required for social learning of real life. Teaching adaptive and functional skills for social learning is a crucial aspect of working with students with intellectual disabilities. Adaptive skills are those skills that allow individuals to function independently and participate in their communities, while functional skills are those skills that are necessary for daily living, such as communication, self-care, and problem-solving. Teaching students with intellectual disabilities requires a multifaceted approach that takes into account each student's unique strengths, challenges, and learning needs. These are some general strategies that can be effective in working with students with intellectual disabilities:

Use a variety of teaching methods: Students with intellectual disabilities may have different learning styles and preferences, so it's important to use a variety of teaching methods to reach all learners. This might include visual aids, hands-on activities, repetition and reinforcement, or verbal instruction.

Focus on functional skills: Teaching functional skills that are relevant to daily life, such as communication, social skills, and self-care, can be particularly important for students with intellectual disabilities. These skills can help students become more independent and better able to participate in their communities.

Provide accommodations and modifications: Accommodations and modifications, such as extended time for assignments, simplified instructions, or the use of assistive technology, can help students with intellectual disabilities access the curriculum and participate in classroom activities.

Build positive relationships: Building positive relationships with students with intellectual disabilities can help create a supportive and inclusive learning environment. This might involve getting to know students on a personal level, providing encouragement and positive feedback, and using humor and other forms of positive reinforcement.

Involve families and support systems: Involving families and support systems, such as caregivers, therapists, and other professionals, can help ensure that students with intellectual disabilities receive the support they need both inside and outside of the classroom. This might involve regular communication, collaboration on goals and strategies, and sharing of resources and information. By using these strategies and tailoring instruction to meet the unique needs of each student, teachers can help students with intellectual disabilities reach their full potential and achieve success both inside and outside of the classroom.

Lecture: 35

(Topics: 172-184)

Topic: 172- Behavioral disorders: -

Topic: 173- Causes of Behavioral disorders: -

Topic: 174- Strategies for teaching students with behavioral disorders-1: -

Topic: 175- Strategies for teaching students with behavioral disorders-2: -

Topic: 176- Identifying circumstances that trigger inappropriate behaviors: -

Topic: 177- Teaching interpersonal skills explicitly: -

Topic: 178- Fairness in disciplining behavioral issues: -

Topic: 179- Physical disabilities and sensory impairments: -

Topic: 180- Hearing loss: -

Topic: 181- Signs of hearing loss-1: -

Topic: 182- Signs of hearing loss-2: -

Topic: 183- Teaching students with hearing loss-1: -

Topic: 184- Teaching students with hearing loss-2: -

Topic 172-Behavioral Disorders

Behavioral disorders are a diverse group of conditions in which a student chronically performs highly inappropriate behaviors that are disruptive, aggressive or antisocial. A student with this condition might seek attention, for example, by acting out disruptively in class. Behavioral disorders can result from a complex interplay of genetic and environmental factors and other students with the condition might behave aggressively, be distractible and overly active, seem anxious or withdrawn, or seem disconnected from everyday reality. Due to financial crisis both parents are working and children are ignored children getting their guidance and advice from internet. Parents should monitor the students so that we resolve behavioral issues in better way.

Topic 173-Causes of Behavioral Disorders

There are multiple causes of behavioral disorders General features in common (Kauffman, 2005; Hallahan & Kauffman, 2006): **Physical illness or disability**: Students are feeling that they have some deficiency and they cannot work as other children are working such as malnutrition or brain damage .They cannot respond like other children. **Hereditary factors**: Some behavioral disorders may be linked to genetic factors, such as a family history of the disorder. **Gender:** Boys are more aggressive than girls. Some child feel that I am alone and other children they have their siblings. **Environment:** Exposure to toxins, poverty, social isolation, or trauma can contribute to the development of behavioral disorders. **Oppositional defiant disorder:** Parenting style, family conflict, and other family-related factors can contribute to the development of behavioral disorders. **Conduct disorder**: These disorders may arise from a combination of genetic, environmental, and social factors.

Topic 174-Strategies for Teaching Students with Behavioral Disorders

Identifying circumstances is that trigger inappropriate behaviors. Teachers should observe the student during different activities and settings to identify patterns of behavior. Physiological affects "including illness, fatigue, hunger, or side-effects from medication. Teachers should communicate with parents and any medical professionals involved in the student's care to understand the impact of medication or medical conditions on the student's behavior. We need to identify main cause behind the behavior of the child so that we can tackle them. Physical features of the classroom: Students with behavioral disorders may be more sensitive to environmental factors such as temperature, lighting, and noise. Teachers should ensure that the classroom is comfortable and free from distractions that could cause discomfort. Instructional choices or strategies: Teacher-centered and student-centered approaches are two different approaches to teaching. The teacher-centered approach is a traditional approach to teaching that places the teacher at the center of the

learning process. The teacher is responsible for presenting the information, directing the activities, and assessing the progress of students. The focus is on the teacher delivering content to the students, and the students are expected to listen, learn, and follow instructions. The teacher-centered approach is often characterized by lectures, direct instruction, and rote learning. You don't have any choice to write according to your opinion or according to any other book .You should follow the same book whatever I suggested. The student-centered approach is a more modern approach to teaching that places the student at the center of the learning process. The focus is on engaging students in the learning process, encouraging them to take ownership of their learning, and providing opportunities for them to explore and discover new information. The teacher serves as a facilitator, guiding students through the learning process and providing support and feedback as needed. It is important for teachers to avoid labeling students with negative stereotypes or criticism. Teachers play a crucial role in the development and success of their students. Motivating and encouraging students is an important part of this role.

Topic 175-Strategies for Teaching Students with Behavioral Disorders

Teaching of interpersonal skills explicit: Teaching interpersonal skills explicitly is a valuable strategy for helping students develop the social and emotional skills they need to succeed in school and in life. Interpersonal skills refer to the ability to interact and communicate effectively with others. Reading or assigning books and stories in which the characters model good social skills. Moral stories can help students develop a sense of morality and ethical behavior. By portraying characters who exhibit positive behaviors and values, students can learn to model these behaviors in their own lives. Physical activity like swimming football etc can provide an outlet for excess energy and aggression, which can reduce the likelihood of students engaging in disruptive behavior. Use of positive reinforcement, extinction, generalization, and the like. Teachers can use a variety of behavioral strategies to promote positive behavior and reduce inappropriate behavior. Positive reinforcement involves providing rewards or praise for positive behavior. This can include verbal praise, stickers, or other rewards. Contingency contracts, which are agreements between the teacher and a student about exactly what work the student will do, how it will be rewarded, and what the consequences will be if the agreement is not fulfilled. For example, , the contract might specify that the student will complete all homework assignments by the due date and receive extra credit or a small reward, such as a sticker, for each completed assignment. If the student fails to complete the assignments on time, the consequences might include a loss of privileges or additional homework etc.

Topic 176-Identifying Circumstances That Trigger Inappropriate Behaviors

Identifying circumstances that trigger inappropriate behaviors is an important step in managing and preventing these behaviors. These are some circumstance that can trigger inappropriate behaviors **Home environment, Classroom environment, Peers attitude, Isolation, Nutrition, Games and Physical excursion**. The home environment can have a significant impact on a student's behavior. Factors such as family conflict, stress etc can contribute to inappropriate behaviors. Exposure to aggressive media can increase stress levels in students,

which can lead to negative behaviors such as aggression, irritability, and impulsivity. It also increases cortisol levels, which is a hormone that is released in response to stress. Students expose to abusive language and negative attitudes, which can become normalized and lead to negative behavior. Students may begin to use this language themselves or adopt negative attitudes towards others. To address this issue, parents and teachers can establish guidelines and limitations for media consumption, particularly when it comes to media that is known to be aggressive or violent. For example, parents can limit screen time and monitor the content of movies and video games that their children are exposed to. Additionally, teachers can promote positive behaviors and attitudes through classroom discussions and lessons that emphasize respect, kindness, and empathy. The classroom environment can also be a trigger for inappropriate behaviors. Factors such as noise, Teacher Methodology, Teacher behavior towards students, overcrowding etc. Negative peer pressure, bullying, and social isolation can all contribute to negative behavior. Students who are hungry or have poor diets may be more irritable to negative behavior. Lack of physical activity or opportunities for physical exercise can also be a trigger for inappropriate behaviors.

Topic 177-Teaching Interpersonal Skills Explicitly

Students with behavior disorders have had little opportunity to learn appropriate social skills. Simple courtesies (like remembering to say please or thanks) may not be totally work. Body language: Teachers can use nonverbal cues such as facial expressions, gestures, and tone of voice to model appropriate social behavior. Visual supports such as pictures, symbols, and cue cards can help students understand and remember important social skills. Individual Plans: Developing individualized plans for each student and these plans can be developed in collaboration with the student and can include specific goals and strategies for improving social skills. Games: Before the game begins, it is important to set clear expectations for behavior. This can include reminding students about the rules of the game, as well as specific expectations for how they should treat each other during the game .how to play the game fairly and how to treat other players with respect. This can include praising students for exhibiting positive social skills, such as taking turns, sharing, and helping others. Games can be a helpful tool for promoting discipline and positive behavior in students. Role plays: Role-playing scenarios can help students practice social skills in a safe and supportive environment. This can include practicing how to ask for help, how to introduce one, and how to handle conflicts with others. Reading Stories: Stories can be used to teach about empathy, kindness, and other important social skills.

Topic 178-Fairness in Disciplining Behavioral Issues

Less Punishments, rather than relying solely on punishments, it is important to use a range of disciplinary strategies that are appropriate for the situation and the student. This can include positive reinforcement, modeling appropriate behavior, and teaching social skills. B.F. Skinner identified three types of reinforcement in his operant conditioning theory positive reinforcement, negative reinforcement and punishment. Positive reinforcement: Positive reinforcement involves adding a desirable stimulus to increase the likelihood of a behavior being repeated in the future. For example, if a student completes their homework on time and receives praise from their teacher, they

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are more likely to complete their homework on time in the future. Negative reinforcement: Negative reinforcement involves removing an unpleasant stimulus to increase the likelihood of a behavior being repeated in the future. For example, if a student is allowed to skip a difficult assignment after completing an easier one, they are more likely to complete the easier assignment quickly in the future to avoid the difficult assignment. Punishment: Punishment involves adding an unpleasant stimulus to decrease the likelihood of a behavior being repeated in the future. For example, if a student breaks a classroom rule and is given a detention, they are less likely to break that rule in the future to avoid the punishment. Consulting with everyone involved in the case‖ especially parents, other specialists, and the student himself‖ and reaching an agreement before adopting new strategies that differ significantly from the past. Records, collaboration with parents and other professionals can be more productive and fair-minded.

Topic 179-Physical Disabilities and Sensory Impairments

Physical disabilities refer to any condition that affects a person's ability to move, use their limbs, or perform physical activities and Sensory impairments refer to any condition that affects a person's ability to receive or process sensory information, including sight, hearing, touch, taste, and smell. Students with multiple disabilities can be a complicated case. Students with multiple disabilities require a high level of support and specialized services to meet their unique needs. Special education teachers who work with students with multiple disabilities are typically well trained and have expertise in addressing the complex needs of these students. Identifying a student's disability and creating an individualized plan is an important step in providing appropriate support and accommodations. Providing accommodations, such as allowing the student to eat small, frequent meals throughout the day, can help to address issues related to irregular eating patterns. Additionally, providing a consistent routine and schedule can help to promote stability and reduce stress. Set eating habits and toilet training. Vision or hearing problems, Ensuring that the classroom and materials are accessible to students with physical disabilities and sensory impairments is essential. This might include providing ramps, elevators, or other accessibility features, as well as ensuring that materials are available in accessible formats, such as braille or large print. Serious sensory impairments may also have other disabilities and therefore not be counted in statistics about sensory impairments. Teachers can model appropriate behavior by demonstrating healthy eating habits and social skills .This can help students to develop a clear understanding of what is expected and to learn by example. Counseling can also provide a safe and supportive space for students to discuss their concerns and receive guidance and support.

Topic 180-Hearing Loss

Hearing impairment refers to a partial or total inability to hear sounds. It can range from mild to profound and can affect one or both ears. Hearing aids can be a very useful tool for people with hearing impairment to hear and understand instructions. Sign language is a visual language that uses hand gestures, facial expressions, and body language to convey meaning. It can be used as a primary language for people who are deaf or hard of hearing. In identifying a student who may have a hearing loss, therefore, teachers need to observe the student over an extended period of time and

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in as many situations as possible. In particular, look for a persistent combination of some of the following, but look for them over repeated or numerous occasions (Luckner & Carter, 2001): Delayed language or literacy skills, both written and oral, some ability (usually partial) to read lips, less worldly knowledge than usual because of lack of involvement with oral, Dialogue and/or delayed literacy, occasionally, tendency to social isolation because of awkwardness in communication.

Topic 181-Signs of Hearing Loss

Even while assessing whether a student has a hearing loss may appear simple ("Just give a hearing test!"), the evaluation is frequently ambiguous if it takes the student's daily experiences into consideration. A serious or profound hearing loss: A significant or profound hearing loss usually becomes apparent very fast, and as a result, frequently obtains special assistance (or at least receives extra diagnosis) sooner. Mild or moderate hearing loss: Mild or moderate hearing loss is much more common, however, and is more likely to be overlooked or mistaken for some other sort of learning problem (Sherer, 2004). Students with a mild hearing loss sometimes have somewhat depressed (or lowered) language and literacy skills they ought not always, and in any case so do some students without any loss. They may also seem not to listen or attend to a speaker because of trouble in locating the source of sounds —but then again, sometimes students without loss also fail to listen, though for entirely different reasons.

Students with hearing loss may frequently give incorrect answers to questions. Students' true ability to manage in class depends on how well they combine cues and information from the entire context of classroom life.

Topic 182: Signs of Hearing Loss

Signs of hearing loss that shows hearing issues looking towards other students' work.

When students are sitting in the classroom they always shows these signs and the teacher can easily identify their hearing loss. When they are looking again and again towards their class fellows to ask them different questions and they are asking questions from their teachers again and again .it is showing that they have some problems either they are facing hearing issues or it can be any other issue. Facial Expressions, Writing issues: students cannot understand well their teachers' instructions so they always feel problem writing and the need assistance from their class fellows and teachers to write properly that always sign of hearing loss. Consulting others continuously they are busy in consulting with others to write, to understand , to oral express .Slow writing :They are slow writers behind this there are several reasons .Students are not interested in the lecture so they are writing slow and may be their habits to slow. Teachers should be aware of the indicators of hearing loss in the classroom and should recommend a hearing screening if necessary.

Topic 183-Teaching Students with Hearing Loss

Take advantage of the student's residual hearing. Seat the student close to you if you are doing the talking or close to key classmates if the students are in a work group. Keep competing noise, such as unnecessary talking or whispering, to a minimum. Keep instructions concise and to-the-point. Ask the student occasionally whether he or she understands. Use visual cues liberally. Make charts and diagrams wherever appropriate to illustrate what you are saying. Look directly at the student when you are speaking to him or her (to facilitate lip reading). Include the student in the

community of the classroom: Enlist the help of one or more peers in "translating" oral comments that the student may have missed.

Topic 184-Teaching Students with Hearing Loss

Gesture and point to key words or objects but within reason, not excessively. This can help individuals with hearing loss follow along with what you are saying and understand the context of the conversation. However, it is important to use this strategy within reason and not excessively, as it can become distracting or confusing. Provide handouts or readings to review visually the points that you make orally. Providing written materials can be helpful for individuals with hearing loss to review the points that you make orally. This can also serve as a reference for future conversations. Sign language is a visual language that can be used to communicate with individuals who are deaf or hard of hearing. If you are not proficient in sign language, you can consider working with a sign language interpreter or taking a course to learn basic signs.

Lecture: 36

(Topics: 185-195)

Topic: 185- Visual impairment: -

Topic: 186- Teaching students with visual impairment-1: -

Topic: 187- Teaching students with visual impairment-2: -

Topic: 188- Teaching students with visual impairment-3: -

Topic: 189- The value of including students with special needs: -

Topic: 190- Mentally retarded children: -

Topic: 191- Causes of mental retardation: -

Topic: 192- Education of mentally retarded children: -

Topic: 193- Students with Intellectual Disabilities: -

Topic: 194- Teaching Students with Intellectual Disabilities-4: -

Topic: 195- Students with Health and Sensory Impairments: -

Topic 185-Visual Impairment

Students with visual impairments have difficulty seeing even with corrective lenses. Most commonly the difficulty has to do with refraction (the ability to focus), meaning that they may have trouble focusing their eyes on objects at different distances. Some students may also experience a limited field of view (called tunnel vision),which can make it difficult to see things that are not

directly in front of them or be overly sensitive to light in general , which can make it uncomfortable or even painful to be in brightly lit environments. As with hearing loss, labels for visual impairment depend somewhat on the extent and nature of the problem. Both heredity and environmental factors can play a role in the development of visual impairments. Many eye conditions are known to have a genetic component, meaning that they are inherited from one's parents. For example, conditions such as color blindness, retinitis etc. Environmental factors that may contribute to visual impairments include poor nutrition, exposure to toxins, and injury to the eye. For example, a traumatic injury to the eye can cause vision loss, and exposure to toxins such as mercury or lead can damage the optic nerve or other structures in the eye. If a child complains that their vision is blurry or they are having difficulty seeing things in the distance, this is also a sign that they may be experiencing visual problems. It's important to take these complaints seriously and to schedule an eye exam with an optometrist or ophthalmologist. Regular eye exams are important for children, even if they do not exhibit any obvious signs of visual problems. Encouraging children to engage in physical activities and limiting screen time can be beneficial for their overall health and well-being, including their eye health.

Topic 186-Teaching Students with Visual Impairment-1

The treatment for students with visual impairments will depend on the extent and nature of their impairment**. Legal blindness** means that the person has significant tunnel vision or else visual acuity (sharpness of vision) of 20/200 or less, which means that he or she must be 20 feet away from an object that a person with normal eyesight can see at 200 feet**.** For students with legal blindness, accommodations may include providing materials in large print or braille, using audio books or text-to-speech software, and providing assistive technology such as screen readers or magnification software. **Low vision means** that a person has some vision usable for reading, but often needs a special optical device such as a magnifying lens for doing so. For students with low vision, accommodations may include using high-contrast materials, providing enlarged print or magnification devices, and using lighting that reduces glare. Modifications may include adjusting the font size or spacing on materials, or providing additional time for completing assignments or assessments. **Mild visual impairment** a student will spend some or even all the time in a regular class. Outdoor activities such as basketball, hiking, and cycling are great ways to divert children's attention away from mobile devices, indoor games such as table tennis, ludo, and other games can also be effective in promoting physical activity and reducing screen time.

Topic 187-Teaching Students with Visual Impairment-2

When teaching students with visual impairments, it is important to be aware of the signs and symptoms that may indicate that the student is experiencing discomfort. These signs may include The students may rub their eyes a lot, for example, blink more than usual, or hold books very close to read them. They may complain of itchiness in their eyes, or of headaches, dizziness, or even nausea after doing a lot of close eye work.

Students with visual impairments who require more specialized support, there are schools that specialize in providing education and services for students with visual impairments. However, it's worth noting that attending a school for the blind or visually impaired is not the right choice for every student with a visual impairment. Some students may thrive in a mainstream classroom with appropriate accommodations and modifications, while others may benefit from a combination of mainstream and specialized services. The best approach will depend on the specific needs and

challenges of the individual student. It may be helpful for teachers and school counselors to provide information and resources to parents on the importance of a healthy diet for students with visual impairments. A balanced and nutritious diet can help to support the health and well-being of students with visual impairments, and may also help to improve their visual function. Some key nutrients that may be particularly important for students with visual impairments include: - Vitamin C, Vitamin D, take Juices etc.

Topic 188-Teaching Students with Visual Impairment-3

Use hands-on materials and providing experiences can be a great way to help students with visual impairments access the curriculum and participate fully in the classroom. Wherever, they will work, such as maps printed in three-dimensional relief or with different textures. If the student knows how to read Braille (an alphabet for the blind using patterns of small bumps on a page), allow him to do so. For students who are blind or have low vision, braille can be a valuable tool for accessing written information and participating in the classroom. Recruit classmates to help explain visual material when necessary to learn a bit of basic Braille and encourage classmates to do the same, even if none of you ever become as skilled with it as the student himself or herself.

Topic 189-The Value of Including Students with Special Needs

The most notable additional benefit is that many teaching strategies that are good for students with disabilities also turn out to benefit all students benefits like careful planning of objectives, attention to individual differences among students, and establishment of a positive social atmosphere in the classroom. Teaching students with either a hearing loss or a vision loss primarily involves making use of the students' residual sensory abilities and insuring that the student is included in and supported by the class as well as possible. Special schools can provide a valuable resource for parents of children with special needs, including those with visual impairments or intellectual disabilities. These schools can offer guidance and support to parents, as well as provide tips and strategies for addressing the specific needs and challenges that their child may face.

Topic 190-Mentally Retarded Children

Mental retardation (or intellectual disability) means having below average intelligence and skills necessary for daily life. It exists in children and adults whose brains do not develop properly or function within the normal range. There are four levels of Intellectual Disability (ID):

1. Mild: Individuals with mild Intellectual Disability may have an intellectual functioning level of 50-70.Individuals with mild ID are slower in all areas of conceptual development and social and daily living skills. These individuals can learn practical life skills, which allow them to function in ordinary life with minimal levels of support.
2. Moderate: Individuals with moderate ID may have an intellectual functioning level of 35-50. They may have significant difficulties with academic learning and may need support with activities of daily living, such as dressing and grooming. Individuals with moderate ID can take care of themselves, travel to familiar places in their community, and learn basic skills related to safety and health. Their self-care requires moderate support.
3. Severe: Individuals with severe ID may have an intellectual functioning level of 20-35. They may have limited communication skills and may require significant support with activities of daily living.

4. Profound: Individuals with profound ID may have an intellectual functioning level below 20. They may have significant physical and medical needs, as well as limited communication skills.

Symptoms of Intellectual Disability will vary based on your child's level of disability and may include:

- Failure to meet intellectual milestones

- Sitting, crawling, or walking later than other children

- Problems learning to talk or trouble speaking clearly

- Memory problems

- Inability to understand the consequences of actions

- Inability to think logically

- Childish behavior inconsistent with the child's age

- Lack of curiosity

- Learning difficulties

- IQ below 70

Topic 191-Causes of Mental Retardation

Intellectual disability (ID) or mental retardation can have multiple causes:

- Trauma before birth, such as an infection or exposure to alcohol, drugs, or other toxins can disrupt normal brain development and lead to ID.

- Trauma during birth, such as oxygen deprivation or premature delivery can also lead to brain damage and ID.
- Inherited disorders, such as phenylketonuria (PKU) or Tay-Sachs disease.

- Chromosome abnormalities, such as Down syndrome can cause ID by disrupting normal brain development.

- Lead or mercury poisoning.

- Severe malnutrition or other dietary issues.

- Severe cases of early childhood illness, such as whooping cough, measles, or meningitis.

- Brain injury, Traumatic brain injury, such as from a car accident or fall, can cause brain damage.

Topic 192- Education of Mentally Retarded Children

Students with mild or moderate intellectual disabilities may be able to attend regular schools and take classes alongside their non-disabled peers, depending on their individual needs and abilities. Students with severe or profound intellectual disabilities may benefit from attending special schools. . Vocational training and job skills programs can provide individuals with the opportunity to learn and practice skills that are relevant to specific industries or trades, such as carpentry, auto repair, or tailoring.

Individual Plans: The education of mentally retarded or intellectually disabled children typically involves individualized plans and specialized programming that takes into account the child's specific needs and abilities.

Education: Special education services may include specialized instruction, assistive technology, and other accommodations that are designed to help the child access the curriculum and participate fully in the classroom.

Social skills: Social skills training can help children with intellectual disabilities to develop communication skills, improve their ability to form relationships, and navigate social situations.

Life skills: Life skills training can help children with intellectual disabilities to develop important skills for independent living, such as personal hygiene, self-care, and household tasks.

Treatment may include: **Behavior therapy**: Behavior therapy can help children with intellectual disabilities to learn positive behaviors and develop coping strategies for managing challenging behaviors. **Occupational therapy:** Occupational therapy can help children with intellectual disabilities to develop fine motor skills, coordination, and other skills needed for daily living. Occupational therapy can help children with intellectual disabilities to develop fine motor skills, coordination, and other skills needed for daily living. **Counseling:** Counseling can provide emotional support and help children with intellectual disabilities to develop coping strategies for

managing stress, anxiety, and other emotional challenges. **Medication**, in some cases medication may be prescribed to manage symptoms of co-occurring conditions, such as ADHD or anxiety.

Topic 193-Students with Intellectual Disabilities

Those Students who are having intellectual disabilities they are called special children and they deal with special provision. **Aggression:** Some students with intellectual disabilities may exhibit aggressive behaviors, such as hitting, biting, or kicking. This may be due to frustration, difficulty communicating, or other factors. **Dependency:** Some students with intellectual disabilities may have difficulty with independence and may become overly dependent on caregivers or others for support. **Withdrawal from social activities:** Some students with intellectual disabilities may have difficulty with social skills and may withdraw from social activities or interactions. Attention-seeking behavior: Some students with intellectual disabilities may seek attention through disruptive or attention-seeking behaviors, such as acting out or misbehaving. **Depression during adolescent and teen years:** Like many adolescents and teens, students with intellectual disabilities may experience feelings of depression or anxiety, which can be exacerbated by the challenges associated with their disability. **Lack of impulse control:** Some students with intellectual disabilities may have difficulty with impulse control, which can lead to impulsive or risky behaviors. **Passivity**, tendency toward self-injury and Stubbornness. It is important for caregivers, educators, and others to work together to identify and address these behaviors, and to provide appropriate support and interventions to help students with intellectual disabilities to manage these challenges and reach their full potential.

Topic 194-Teaching Students with Intellectual Disabilities

Teaching students with intellectual disabilities requires a tailored and individualized approach that takes into account the unique needs and abilities of each student. They provide them teaching, coaching and adjustment in the society. Students with intellectual disabilities may be placed into one of four categories, based on the severity of their disability:

1. Mild disability (educable): Students with mild intellectual disabilities typically have an IQ between 50-70 and may be able to learn academic skills and concepts with additional support and accommodations. They may benefit from inclusion in regular classrooms with additional support, or specialized instruction in resource rooms or other settings.

2. Moderate disability (educable): Students with moderate intellectual disabilities typically have an IQ between 35-50 and may require more intensive support and accommodations to learn academic skills and concepts. They may benefit from special education classes or individualized instruction in resource rooms or other settings.

3. Severe disability (trainable): Students with severe intellectual disabilities typically have an IQ between 20-35 and may require specialized instruction and support to learn basic academic skills and concepts. They may benefit from specialized schools or classes that are tailored to their specific needs and abilities, as well as vocational training and job skills programs to help them develop practical skills.

4. Profound disability (difficult to train): Students with profound intellectual disabilities typically have an IQ below 20 and may have significant physical and medical needs in addition to their cognitive challenges. They may require intensive support and care to meet their basic needs, and may

benefit from specialized schools or residential care facilities that are tailored to their specific needs and abilities.

Topic 195-Students with Health and Sensory Impairments

The typical characteristics of students with sensory impairments include total or partial loss of vision, total or partial loss of hearing, and loss of significant degree of both hearing and vision. Sensory impairment is the common term used to describe deafness, blindness, visual impairment, hearing impairment and deaf blindness.it is not justifying one trait but basically it is the combination of problems in senses and senses that if the person has partial loss in hearing, seeing or others senses that is called sensory impairments. Whatever the degree or level of the problem is students face these impairments. Students and teachers must know about how we can handle students with these impairments. Instruction, including lectures, website, videos, overheads, handouts, and textbook must be accessible to all students. Brail System and use recorded textbooks or equipment to enlarge print (closed circuit television [CCTV]) or actual enlargements.

Lecture: 37

(Topics: 196-204)

Topic: 196- Seizure Disorders (Epilepsy): -

Topic: 197- Students Who Are Deaf: -

Topic: 198- Autism Spectrum Disorders and Asperger Syndrome: -

Topic: 199- Causes of Autism: -

Topic: 200- Interventions-1: -

Topic: 201- Interventions-2: -

Topic: 202- Identification of problems in e-learning: -

Topic: 203- Issues related with e-learning: -

Topic: 204- Facilitating Complex Thinking: -

Topic 196-Seizure Disorders (Epilepsy)

Epilepsy is a central nervous system (neurological) disorder in which brain activity becomes abnormal, causing seizures. Seizures are individual occurrences of abnormal electrical activity in the brain apparently can be caused by almost any kind of damage to the brain. There are many causes of seizures, including singular events like a medication reaction, lack of sufficient oxygen (hypoxia), low blood sugar (hypoglycemia), infections, and physical trauma. Epilepsy, on the other hand, is a chronic neurologic disorder that causes repeated seizure activity. In epilepsy the brain's electrical rhythms have a tendency to become imbalanced, resulting in recurrent seizures. In patients with

seizures, the normal electrical pattern is disrupted by sudden and synchronized bursts of electrical energy that may briefly affect their consciousness, movements or sensations.

Topic 197-Students Who Are Deaf

Students who are deaf refer to students who have hearing loss to the extent that it affects their ability to access auditory information. The main types of hearing loss are sorted into three categories. Types of hearing loss include sensorineural (nerve-related), conductive (affecting the outer or middle ear) or a mixed hearing loss (mixture of both types.)The most common type of hearing loss is sensorineural. It is a permanent hearing loss that occurs when there is damage to either the tiny hair-like cells of the inner ear, known as stereocilia, or the auditory nerve itself, which prevents or weakens the transfer of nerve signals to the brain. Interference with transmission of the nerve signals to the brain can lead to problems with speech clarity or loudness growth. For these reasons, sensorineural hearing loss may mean difficulty understanding speech despite appropriate volume.

A less common type of hearing loss is conductive hearing loss, which occurs when there is an obstruction or damage to the outer or middle ear that prevents sound from being conducted to the inner ear. Conductive hearing loss may be temporary or permanent, depending on the cause. Mixed hearing loss commonly occurs when the ear sustains some sort of trauma. It also can happen gradually over time when one hearing loss is compounded by another. For example, a person with a long-standing conductive hearing loss might experience age-related hearing loss as they age. Alternatively, a person with age-related hearing loss may have a temporary mixed hearing loss due to wax impaction.

Sign Language is commonly used by students who are deaf as a means of communication. Sign languages are visual languages that use a combination of hand gestures, facial expressions, and body language to convey meaning Auslan interpreters and live remote captioning are two techniques that can be provided to students who are deaf to help them access educational materials and communicate with others. Each learner with a hearing loss should be assessed individually and accommodations should be implemented based on the unique needs of each student.

Topic 198-Autism Spectrum Disorders and Asperger Syndrome

Autism spectrum disorder (ASD) is a neurological and developmental disorder that affects how people interact with others, communicate, learn, and behave. Although autism can be diagnosed at any age, it is described as a ―developmental disorder‖ because symptoms generally appear in the first two years of life.

Asperger's syndrome is technically no longer a diagnosis on its own. It is now part of a broader category called autism spectrum disorder

- Difficulty with social interactions, restricted interests, desire for sameness and distinctive strengths.
- Hypersensitivities (to lights, sounds, tastes, etc.) This can affect individuals in a range of ways, from mild discomfort to significant distress, and can impact their ability to function in their daily lives.
- Difficulty with the give and take of conversation. They don't want to responed back to any conversation and emotions.

- Difficulty with nonverbal conversation skills (distance, loudness, tone, etc.)
- Uncoordinated movements or clumsiness.

Topic 199-Causes of Autism

Every disorder has multiple causes. There are multiple risk factors that can increase the chance of having Autism which includes:

- Having an immediate family member who's autistic: There is a strong genetic component to autism and having a sibling or parent with autism increases the risk of developing the disorder.
- Certain genetic mutations: Some genetic mutations have been associated with an increased risk of autism.
- Fragile X syndrome and other genetic disorders.
- Being born to older parents: Children born to older parents, particularly mothers over the age of 35, are at a slightly higher risk of developing autism.
- Low birth weight.
- Metabolic imbalances.
- Exposure to heavy metals and environmental toxins.
- A maternal history of viral infections.

Topic 200- Interventions

Applied Behavior Analysis (ABA) is a commonly used intervention for individuals with autism. ABA is a scientific approach to behavior analysis that focuses on observable behaviors and their relationship to the environment. ABA uses a systematic approach to measure and analyze behavior, and it emphasizes the use of single-subject design to show the relationship between behavior and the environment. ABA interventions typically involve breaking down complex behaviors into smaller, more manageable components, and using positive reinforcement to increase desired behaviors and decrease unwanted behaviors. ABA interventions can be tailored to the individual needs of the student, and may involve a range of techniques, such as prompting, shaping, and modeling. A focus on behaviors of social relevance.

Additional Reading

There are many other interventions that may be helpful for students with autism, depending on their specific needs and challenges. Some examples of other interventions include:

1. Speech therapy: Speech therapy can help students with autism develop communication skills, such as language and social communication.

2. Occupational therapy: Occupational therapy can help students with autism develop skills related to daily living, such as self-care and fine motor skills.

3. Social skills training: Social skills training can help students with autism develop social skills and improve their ability to interact with others.

4. Sensory integration therapy: Sensory integration therapy can help students with autism manage hypersensitivity or hyposensitivity to sensory stimuli.

Topic 201-Interventions

Visual interventions with research support include the use of schedules, story-based instruction, picture exchange systems, and structured teaching (e.g., TEACCH Autism Project). Schedules can help individuals with autism understand and navigate their daily routines and activities. Visual schedules, such as picture schedules or written schedules, can be particularly helpful for individuals who struggle with verbal communication or have difficulty with transitions. Story-based instruction involves using stories or narratives to teach social and communication skills. This approach can be particularly effective for individuals with autism, who often benefit from concrete and visual examples of social interactions. Picture exchange systems involve using pictures or symbols to communicate wants and needs. This approach can be particularly helpful for individuals who struggle with verbal communication. Structured teaching involves creating a structured, organized learning environment that emphasizes visual supports and individualized instruction. In many cases, visual supports are used as a package along with other interventions. **Targeted therapies** (e.g., speech/language, OT) can be used to increase communication skills and to improve independence in activities of daily living. Social Skill Therapy: Autistic child they dislike socialization .They want to just involve with their own world so, how to motivate them to participate in social learning and that should be included in the instruction teaching plan. Social skills therapy is a type of intervention that focuses on helping individuals with autism develop social skills and improve their ability to interact with others. Social skills therapy may involve a range of techniques, such as modeling, role-playing, and feedback, to help individuals learn and practice social skills in a supportive environment.

Topic 202 - Identification of Problems In E-Learning

Identifying problems in e-learning is an important step in addressing the challenges that students may face when learning in an online environment. Some common problems that students may encounter when participating in e-learning include:

1.   Adaptability struggle: Students may struggle to adapt to the online learning environment, particularly if they are used to traditional classroom instruction. The lack of face-to-face interaction, the need to manage their own learning, and the use of technology may all present challenges for students.

2. Technical issues: Technical issues, such as connectivity problems, software glitches, or hardware failures, can disrupt students' learning and cause frustration. Technical issues may also prevent students from accessing online resources or completing assignments.

3. Computer literacy: Students who are not familiar with technology or who lack computer literacy skills may struggle with e-learning. They may have difficulty navigating online platforms, using software applications, or accessing digital resources.

4. Time management: E-learning requires students to manage their own time effectively, which can be challenging for some students. Without the structure of regular class meetings and face-to-face interactions with teachers, students may struggle to stay on task and meet deadlines.

5. Self-motivation: E-learning requires a high degree of self-motivation and self-discipline. Students who lack motivation may struggle to stay engaged with the material, participate in online discussions, or complete assignments.

Topic 203 - Issues Related with E-Learning

E-learning, like any other mode of learning, has its own set of challenges and issues that learner and educators may face. Some common issues related to e-learning include:

- Visual learning (mode of presentation): Some learners may struggle with visual learning, and may find it difficult to understand concepts that are presented primarily through text or visual aids.
- Lack of clarity without instructor: Learners may struggle to understand complex or abstract concepts without the guidance of an instructor, particularly if they are learning independently or asynchronously.
- Class may feel isolated: E-learning can be a solitary experience, and learners may miss the social interactions and sense of community that are often present in traditional classroom settings.
- Decreased knowledge retention: Research suggests that learners may have lower levels of knowledge retention with e-learning than with traditional classroom instruction. This may be due to a variety of factors, including lack of engagement, distractions, and limited opportunities for discussion and interaction.
- Plagiarism: With the abundance of information available online, learners may be tempted to plagiarize or copy content without proper attribution.
- Technical difficulties: Technical issues such as connectivity problems, software glitches, or hardware failures can disrupt learners' learning and cause frustration.
- Communication: Communication may be more challenging in e-learning environments, particularly if learners are not able to meet with instructors or peers in person.
- Lack of interactivity: E-learning can be less interactive than traditional classroom instruction, particularly if learners are engaging with recorded lectures or pre-recorded content.

Topic 204 - Facilitating Complex Thinking

How can we facilitate our complex thinking that general thinking we are thinking about someone and different issues it is called thinking and complex thinking when we think deeply on any issue , with logic is it complex thinking .There are two ways to administer, create and deal complex thinking. Facilitating complex thinking is an important goal of education, as it helps students develop critical thinking skills and the ability to solve complex problems.

Direct instruction: that is directed from teacher towards students. Teacher can use any teacher strategy either can lecture method, discussion and question answer method. When it is directed

through teacher towards students' guidance is called direct instruction. Direct instruction can be effective in facilitating complex thinking by providing students with a clear understanding of the concepts and skills they need to apply to more complex tasks.

Student centered instruction: Student-centered instruction involves giving students more control over their learning and encouraging them to take an active role in their own learning. This approach often involves problem-based learning, inquiry-based learning, or project-based learning, where students work on complex tasks or projects that require them to apply their knowledge and skills in creative and innovative ways. Student-centered instruction can be effective in facilitating complex thinking by encouraging students to think critically, creatively, and independently.

Lecture: 38

(Topics: 205-211)

Topic: 205- Forms of Thinking: -

Topic: 206- Critical thinking: -

Topic: 207- Methods of development of CT-1: -

Topic: 208- Methods of development of CT-2: -

Topic: 209- Methods of development of CT-3-

Topic: 210- Importance of CT for students and teachers: -

Topic: 211- Richard Paul model for assessment of CT: -

Topic 205-Forms of Thinking

Three somewhat complex forms of thinking that are commonly pursued in classroom learning:

Critical thinking: Critical thinking involves analyzing, evaluating, and interpreting information to make rational judgments and decisions. We are making connections and going towards conclusion of any situation so through connection when you understand the situation that means that you are going through logic it involves questioning assumptions, considering different perspectives, and being able to identify and evaluate arguments and evidence. Critical thinking is important for making informed decisions, solving complex problems, and developing a deep understanding of concepts and ideas.

Creative thinking: Creative thinking involves generating new ideas, perspectives, and solutions to problems. It involves thinking outside the box and taking risks to explore new possibilities. Creative thinking is important for innovation, problem-solving and developing new ideas and products.

Problem-solving: Problem-solving involves identifying and analyzing problems, developing and evaluating possible solutions, and implementing and monitoring solutions to ensure they are effective. Problem-solving is important for making decisions, resolving conflicts, and achieving goals.

Topic 206- Critical Thinking

Critical thinking requires skill at analyzing the reliability and validity of information, as well as the attitude or disposition to do so. The skill and attitude may be displayed with regard to a particular subject matter or topic, but in principle it can occur in any realm of knowledge. The critical thinker asks key questions, evaluates the evidence for ideas, reasons for problems both logically and objectively, and expresses ideas and conclusions clearly and precisely. To develop critical thinking skills, it is important to engage in activities that require analytical and evaluative thinking, such as analyzing texts, participating in debates or discussions, and solving complex problems. Teachers can also support the development of critical thinking skills by providing feedback and guidance, encouraging students to question assumptions and perspectives, and modeling critical thinking behaviors and attitudes.

Topic 207-Methods of Development of Critical Thinking-1

There are several methods for developing critical thinking skills. Three common methods are:

1. **Infusion approach:** Critical thinking skills are integrated into the curriculum across all subject areas. Teachers intentionally design activities and assignments that require students to engage in critical thinking, such as analyzing texts, evaluating evidence, and solving complex problems. This approach helps students understand the relevance and importance of critical thinking in all areas of their learning.

2. **Separate entity:** In this approach, critical thinking is taught as a separate course or unit, independent of other subject areas. Students learn specific critical thinking skills and strategies, such as problem-solving, decision-making, and argument analysis, through structured lessons and activities. This approach provides students with targeted instruction and practice in critical thinking.

3. **Reflection:** Students reflect on their own thinking and learning processes, and identify areas where they need to improve their critical thinking skills. This approach encourages students to be self-aware and reflective learners, and helps them develop metacognitive skills. Teachers can facilitate reflection through activities such as journaling, class discussions, and self-assessments.

Topic 208-Methods of Development of Critical Thinking-2

These methods can be taught and practiced through a variety of activities, such as analyzing texts, participating in debates or discussions, solving complex problems, and engaging in reflective practices. Teachers can also support the development of these methods by providing feedback and guidance, encouraging students to question assumptions and perspectives, and modeling critical thinking behaviors and attitudes.

- Analysis: Breaking down complex information into smaller parts to understand how they relate to each other.

- Interpretation: Making sense of information by identifying patterns, themes, and relationships.
- Inference: Drawing conclusions based on evidence and reasoning.
- Explanation: Communicating ideas clearly and logically, and supporting arguments with evidence. For example can you explain this scenario?
- Self-regulation: Monitoring and evaluating one's own thinking processes and adjusting them as needed. For example can you tell me your reasons?
- Open-mindedness: Being willing to consider different perspectives and ideas, and being open to changing one's own beliefs and opinions. You should be open minded .you should not be biased with someone. You should not show favoritism towards your students.
- Problem-solving: Identifying and analyzing problems, developing and evaluating possible solutions, and implementing and monitoring solutions to ensure they are effective.

Topic 209-Methods of Development of Critical Thinking-3

There are multiple methods to develop critical thinking and instructor or parents can use any method to develop critical thinking skill. Basically, critical thinking is always developing though a process. There is no single method to create critical thinking skill but when the child will go through a process of critical thinking then critical thinking will be easily created.

Know exactly what you want: Clearly defining the problem or issue you are trying to solve is an important step in critical thinking. This helps to focus your thinking and guide your analysis and evaluation of information. You are exploring information whatever you need to explain any situation.

Deal with your biases: Recognizing and addressing your own biases is an important part of critical thinking. It helps you to approach problems and issues with an open mind and consider multiple perspectives.

Consider the consequences of your options: Evaluating the potential outcomes of different options is an important part of critical thinking. It helps you to make informed decisions and choose the best course of action.

Do your research: Gathering and analyzing information is a key component of critical thinking. It helps you to make informed decisions and evaluate the validity and reliability of information.

Accept the fact that you're not always right: Being open to the possibility that your ideas or opinions may be incorrect is an important attitude for critical thinking. It helps you to consider alternative perspectives and evaluate evidence objectively.

Break it down: Breaking down complex problems or issues into smaller parts can help to clarify your thinking and make it more manageable. This also helps to identify the underlying assumptions and factors that may be influencing the problem.

Don't overcomplicate things: Keeping things simple and straightforward can help to avoid confusion and unnecessary complexity. It also helps to focus your thinking on the key issues and factors that are most relevant to the problem or issue at hand.

Topic 210-Importance of Critical Thinking CT for Students and Teachers

Critical thinking will enable you to better express your thoughts, ideas, and beliefs. Better communication helps others to understand you better, resulting in less frustration for both of you. Critical thinking fosters creativity and out-of-the-box thinking that can be applied to any area of your life. Critical thinking can help you better understand yourself, and in turn, help you avoid any kind of negative or limiting beliefs, and focus more on your strengths. Being able to share your thoughts can increase your quality of life.

Topic 211-Richard Paul Model for Assessment of CT

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 skillfully taking charge of the structures inherent in thinking and imposing intellectual standards upon them. The model emphasizes that critical thinking is not just a matter of acquiring knowledge or information, but is a process of actively engaging with and improving one's own thinking. It involves taking control of the structures inherent in thinking, such as assumptions, biases, and reasoning processes, and applying intellectual standards to them, such as clarity, accuracy, and relevance. The Richard Paul Model also emphasizes that critical thinking is not a one-time event, but is an ongoing process of self-improvement. It requires individuals to be self-aware and reflective, to constantly evaluate their own thinking processes, and to be willing to revise their beliefs and opinions in light of new information. Critical thinking is the art of thinking about thinking in an intellectually disciplined manner. Critical thinkers analyze thinking, assess thinking, and they improve thinking.

Lecture: 39

(Topics: 212-219)

Topic: 212- Issues in development of critical thinking: -

Topic: 213- Creative thinking: -

Topic: 214- Difference between CT and creative thinking: -

Topic: 215- Problem solving: -

Topic: 216- Problem solving in the classroom: -

Topic: 217- The effect of constraints-Well-structured versus ill structured problems: -

Topic: 218- Common obstacles to solving problems-1: -

Topic: 219- Common obstacles to solving problems-2: -

Topic 212-Issues in Development of Critical Thinking

Critical thinking does not mean that you are challenging someone's work or telling them that they are wrong. Critical thinking means to find strength and weakness of any event or talk then politely tell them that you can improve your thinking by adding this information. Critical thinking

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encourages you to be constructive, by considering the strengths and weaknesses of a claim and differing sides to an argument. It helps you to clarify points, encourages deeper thought, and allows you to determine whether information that you come across is accurate and reliable. This helps you to form your own judgment, and drives research forward.

Topic 213-Creative Thinking

Creativity is the ability to make or do something new that is also useful or valued by others (Gardner, 1993). The ―something‖ can be an object (like an essay or painting), a skill (like playing an instrument), or an action (like using a familiar tool in a new way. Creative thinking is a very important trait that people can polish; improve by going through the process of creativity.

Divergent Thinking: This is a mode of thinking that involves generating multiple ideas or solutions to a problem. It is characterized by a free-flowing and open-ended approach to thinking, where many different possibilities are explored. Divergent thinking is often associated with creativity and innovation, and can be useful in brainstorming sessions and other contexts where new ideas are needed.

Convergent Thinking: Convergent thinking is a kind of thinking that concentrates on finding out one single best answer to questions and instructions that are oriented towards giving one single solution, means convergent thinking deals with determining the link between different ideas, so tasks of convergent have just one solution.

Topic 214-Difference Between Critical Thinking and Creative Thinking

Creative Thinking is going beyond the limitations and being original and fresh in one's ideas. Critical Thinking, on the other hand, is more evaluative in nature and analyses a particular thing. Hence, one can conclude that while Creative thinking is generative in purpose, Critical Thinking is analytical in purpose. Creative Thinking tries to create something new, while critical thinking seeks to assess worth or validity of something that already exists.

Topic 215: Problem Solving

Problem solving is the act of defining a problem; determining the cause of the problem; identifying, prioritizing, and selecting alternatives for a solution; and implementing a solution. Problem solving, the analysis and solution of tasks or situations that are complex or ambiguous and that pose difficulties or obstacles of some kind. Problem-solving coping style refers to an approach to dealing with stress or difficult situations that involves actively addressing the problem and trying to find a solution. Overall, the problem-solving coping style can be an effective way to manage stress and overcome challenges, but it may not be the best approach for everyone or every situation. Sometimes, it may be more effective to use other coping strategies, such as seeking social support, practicing relaxation techniques etc.

Topic 216: Problem Solving in the Classroom

Problem solving that is teaching strategy that we can use in the classroom students are generally used to lecture method, discussion method and some other strategies. Problem solving is usually considered that it is used to just produce the new knowledge and it is used to give skills to be involve in to get new solution by thinking themselves or by working in a group to learn the

collaboration and they will just include any situation, event by working together. Problem solving happens in classrooms when teachers present tasks or challenges that are deliberately complex and for which finding a solution is not straightforward or obvious.

The responses of students to such problems, as well as the strategies for assisting them, show the key features of problem solving. A teacher should be promote and tells the students to complete their work by doing on the problems and you should also use the reinforcement and you should introduce or announce some tokens .Tokens mean that you can announce I will give two marks more if the students will brings three ideas or solutions.

Topic 217: The Effect of Constraints-Well-Structured Versus Ill Structured Problems

A well-structured problem provides much of the information needed and can in principle be solved using relatively few clearly understood rules. Classic examples are the word problems often taught in math lessons. An ill-structured problem has the converse qualities: the information is not necessarily within the problem, solution procedures are potentially quite numerous, and a multiple solutions are likely.

Topic 218: Common Obstacles to Solving Problems

Four of the most common processes and factors are

1. Mental set

2. Functional fixedness

3. Unnecessary constraints

4. Irrelevant information

1. **Mental set:** Mental set refers to a tendency to approach a problem in the same way that has worked in the past, even if that approach is not the most effective for the current problem. This can limit creativity and prevent individuals from considering alternative solutions.

2. **Functional fixedness:** Functional fixedness is the tendency to see objects or concepts as having only one function or use, which can limit the ability to see new uses or solutions. For example, if someone is trying to fix a broken table leg, they may only see the leg as a support for the tabletop, rather than considering other ways it could be used or modified to fix the problem.

3. **Unnecessary constraints:** Unnecessary constraints refer to the limitations that we place on ourselves when trying to solve a problem. These constraints may not actually exist or may be irrelevant to the problem, but they can limit our ability to see possible solutions. For example, if someone is trying to find a way to transport a large object, they may assume that they can only use a truck or a trailer, rather than considering other modes of transportation.

4. **Irrelevant information:** Irrelevant information can be a distraction that prevents individuals from focusing on the relevant aspects of the problem. It can also lead individuals to make incorrect assumptions or draw incorrect conclusions. For example, if someone is trying to solve a math problem, irrelevant information in the problem statement may distract them from the key information needed to solve the problem.

Topic 219: Common Obstacles to Solving Problems

These are the common obstacles to solve the problems are:

- **The discovery of the problem**
- **The decision to tackle the issue**
- **Understanding the problem**
- **Researching the available options**
- **Taking actions to achieve your goals**

The discovery of the problem: This is the first step in the problem-solving process, which involves recognizing that there is a problem or an issue that needs to be addressed. This may involve gathering information, listening to feedback, or paying attention to changes in the environment.

The decision to tackle the issue: Once a problem has been identified, the next step is to make a decision to address it. This may involve setting goals, identifying priorities, and determining what resources are needed to solve the problem.

Understanding the problem: This step involves gaining a deeper understanding of the problem by gathering information, analyzing data, and identifying the root causes of the problem. This may involve asking questions, conducting research, or consulting with experts.

Researching the available options: Once the problem has been clearly defined and understood, the next step is to research the available options for solving the problem. This may involve brainstorming, evaluating different strategies, or considering the pros and cons of each option.

Taking actions to achieve your goals: The final step in the problem-solving process involves taking action to implement the chosen solution. This may involve developing a plan, setting deadlines, and monitoring progress to ensure that the solution is effective and sustainable.

Lecture: 40

(Topics: 220-227)

Topic: 220- Strategies to assist Problem solving:-

Topic: 221- Broad instructional Strategies to assist problem solving:-

Topic: 222- Teacher directed instruction: -

Topic: 223- Lecture and reading:-

Topic: 224- Advance organizers:-

Topic: 225- Recalling and relating prior knowledge:-

Topic: 226- Elaborating Information:-

Topic: 227- Organizing new information: -

Topic: 220- Strategies to assist Problem solving:-

- **Algorithms**
- **Heuristics**
- **Trial and Error**
- **Problem Analysis**
- **Working Backward**
- **Analogical Thinking**

A problem-solving strategy is a plan of action used to find a solution. There are multiple strategies that can help us to find the solution of the problem, such as:

- **Algorithms**
- **Heuristics**
- **Trial and Error**
- **Problem Analysis**
- **Working Backward**
- **Analogical Thinking**

Just as there are cognitive obstacles to problem solving, there are also general strategies that help the process be successful, regardless of the specific content of a problem (Thagard, 2005). One helpful strategy is problem analysis—identifying the parts of the problem and working on each part separately. Analysis is especially useful when a problem is ill-structured. Consider this problem, for example: ―Devise a plan to improve bicycle transportation in the city.‖ Solving this problem is easier if you identify its parts or component subproblems, such as (1) installing bicycle lanes on busy streets, (2) educating cyclists and motorists to ride safely, (3) fixing potholes on streets used by cyclists, and (4) revising traffic laws that interfere with cycling. Each separate subproblem is more manageable than the original, general problem. The solution of each subproblem contributes the solution of the whole, though of course is not equivalent to a whole solution.

Another helpful strategy is **working backward** from a final solution to the originally stated problem. This approach is especially helpful when a problem is well-structured but also has elements that are distracting or misleading when approached in a forward, normal direction. The water lily problem described above is a good example: starting with the day when all the lake is covered (Day 100), ask what day would it therefore be half covered (by the terms of the problem, it would have to be the day before, or Day 99). Working backward in this case encourages reframing the extra information in the problem (i. e. the size of each water lily) as merely distracting, not as crucial to a solution.

A third helpful strategy is **analogical thinking** using knowledge or experiences with similar features or structures to help solve the problem at hand (Bassok, 2003). In devising a plan to improve bicycling in the city, for example, an analogy of cars with bicycles is helpful in thinking of solutions: improving conditions for both vehicles require many of the same measures (improving the roadways, educating drivers). Even solving simpler, more basic problems is helped by considering analogies. A first-grade student can partially decode unfamiliar printed words by analogy to words he or she has learned already. If the child cannot yet read the word screen, for example, he can note

that part of this word looks similar to words he may already know, such as seen or green, and from this observation derive a clue about how to read the word screen. Teachers can assist this process, as you might expect, by suggesting reasonable, helpful analogies for students to consider.

Another type of strategy is an **algorithm**. An algorithm is a problem-solving formula that provides you with step-by-step instructions used to achieve a desired outcome (Kahneman, 2011). In other words, an algorithm is a process or set of rules which must be followed to complete a particular task. This is basically the step-by-step procedure to complete any task. All the tasks are followed a particular algorithm, from making a cup of tea to make high scalable software. This is the way to divide a task into several parts. If we draw an algorithm to complete a task then the task will be easier to complete.

A **heuristic** is another type of problem-solving strategy. While an algorithm must be followed exactly to produce a correct result, a heuristic is a general problem-solving framework (Tversky & Kahneman, 1974). You can think of these as mental shortcuts that are used to solve problems. A ―rule of thumb‖ is an example of a heuristic. Such a rule saves the person time and energy when making a decision, but despite its time-saving characteristics, it is not always the best method for making a rational decision.

Another well-known strategy is **trial and error**. The old adage, ―If at first you don't succeed, try, try again‖ describes trial and error. In terms of your broken printer, you could try checking the ink levels, and if that doesn't work, you could check to make sure the paper tray isn't jammed. Or maybe the printer isn't actually connected to your laptop. When using trial and error, you would continue to try different solutions until you solved your problem. Although trial and error is not typically one of the most time-efficient strategies, it is a commonly used one.

Topic: 221- Broad instructional Strategies to assist problem solving:-

- **Mastery learning**
- **Textbook readings**
- **Advance**
- **Organizers,**
- **Outlining**
- **Recalling**
- **Relating**
- **Elaborating**
- **Self-reflection**
- **Independent study**
- **Concept maps**

Instructional strategies refer to the techniques instructors use to deliver their lessons. Effective instructional strategies help students become actively involved in the learning process. When done right, instructional strategies also support students in reaching their learning objectives.

Broad instructional strategies refer to the comprehensive set of teaching techniques and approaches used to engage students in the learning process. Broad instructional strategies aim to create an

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effective and engaging learning environment for students, allowing them to develop the skills and knowledge necessary to succeed.

Broad instructional strategies to assist problem solving are as:

- **Mastery learning**
- **Textbook readings**
- **Advance organizers**
- **Outlining**
- **Recalling**
- **Relating**
- **Elaborating**
- **Self-reflection**
- **Independent study**
- **Concept maps**

Because the forms of thinking just described—critical thinking, creativity and problem solving—are broad and important educationally, it is not surprising that educators have identified strategies to encourage their development. Some of the possibilities are shown in Table 9.1 and group several instructional strategies along two dimensions: how much the strategy is student-centered and how much a strategy depends on group interaction. It should be emphasized that the two-way classification in Table 24 is not very precise, but it gives a useful framework for understanding the options available for planning and implementing instruction. The more important of the two dimensions in the table is the first one—the extent to which an instructional strategy is either directed by the teacher or initiated by students. We take a closer look at this dimension in the next part of this chapter, followed by discussion of group-oriented teaching strategies.

Table 9.1 Instructional strategies along two dimensions

Directed by student(s) more			
Emphasizes groups somewhat more	Cooperative learning, Inquiry, Discovery learning	Self-reflection, Independent study, Concept maps	Emphasizes individuals somewhat more
	Lectures, Direct instruction, Madeline Hunter's "Effective Teaching"	Mastery learning, Textbook readings, Advance organizers, Outlining, Recalling, relating, and elaborating	
Directed by teacher more			

Definitions of Terms in Table 9.1 (Instructional strategies along two dimensions)

Lecture	Telling or explaining previously organized Information usually to a group.
Assigned reading	Reading, usually individually, of previously organized information.
Advance organizers	Brief overview, either verbally or graphically, of material about to be covered in a lecture or text.
Outlining	Writing important points of a lecture or reading, usually in a hierarchical format.
Taking notes	Writing important points of a lecture or reading, often organized according to the learning needs of an individual student.
Concept maps	Graphic depiction of relationships among a set of concepts, terms, or ideas; usually organized by the student, but not always.
Madeline Hunter's "Effective Teaching"	A set of strategies that emphasizes clear presentation of goals, the explanation and modeling of tasks to students and careful monitoring of students' progress toward the goals.
Mastery learning	This term refers to an instructional approach in which all students learn material to an identically high level, even if some students require more time than others to do so (Gentile, 2004).
Independent study	In independent study, as the name implies, a student works alone a good deal of the time, consulting with a teacher only occasionally.
Self-reflection	It refers to thinking about beliefs and experiences in order to clarify their personal meaning and importance.
Inquiry learning	Inquiry-based learning is a learning process that engages students by making real-world connections through exploration and high-level questioning
Cooperative learning	In this approach, students work on a task in groups and often are rewarded either partially or completely for the success of the group as a whole.
Discovery learning	Discovery learning is an educational approach where students actively explore concepts. It encourages critical thinking, problem-solving skills, and self-directed learning. Teachers act as facilitators, guiding and supporting students as they make their own discoveries.
Direct instruction	Direct instruction is often considered the ―traditional‖ approach to teaching, as it describes the typical classroom in which a professor directly

	presents theoretical concepts, provides examples, and gives an assessment of learning. It is a content-centered approach to learning that passively engages students as listeners.
Recalling	Bringing a fact, event, or situation back into one's mind; remember.
Relating	Establish association, connection, or relation between two or more things.
Elaborating	It means to explain something more fully. This could involve providing more details, examples, or evidence to support the original meaning. It could also involve breaking down the meaning into smaller parts and exploring each of those parts in more depth.

Topic: 222- Teacher directed instruction:-

- **Teacher-Directed instruction includes any strategies initiated and guided primarily by the teacher**
- **A classic example is exposition or lecturing (simply telling or explaining important information to students) combined with assigning reading from texts.**
- **But teacher-directed instruction also includes strategies that involve more active response from students, such as encouraging students to elaborate on new knowledge or to explain how new information relates to prior knowledge**
- As the name implies, teacher-directed instruction includes any strategies initiated and guided primarily by the teacher.
- A classic example is exposition or lecturing (simply telling or explaining important information to students) combined with assigning reading from texts.
- But teacher-directed instruction also includes strategies that involve more active response from students, such as encouraging students to elaborate on new knowledge or to explain how new information relates to prior knowledge.
- Whatever their form, teacher-directed instructional methods normally include the organizing of information on behalf of students, even if teachers also expect students to organize it further on their own. Sometimes, therefore, teacher-directed methods are thought of as transmitting knowledge from teacher to student as clearly and efficiently as possible, even if they also require mental work on the part of the student.

Topic: 223- Lecture and reading:-

- **The formal, verbal presentation of information or other material by an instructor to a group of students or other learners.**
- **The lecture method is used mainly when groups are large or time is limited**
- Lecture is the formal, verbal presentation of information or other material by an instructor to a group of students or other learners.
- The lecture method is used mainly when groups are large or time is limited.
- Lectures and readings are traditional staples of educators, particularly with older students (including university students). At their best, they pre-organize information so that (at least

in theory) the student only has to remember what was said in the lecture or written in the text in order to begin understanding it (Exley & Dennick, 2004). Their limitation is the ambiguity of the responses they require: listening and reading are by nature quiet and stationary, and do not in themselves indicate whether a student is comprehending or even attending to the material. Educators sometimes complain that ―students are too passive‖ during lectures or when reading. Reading and lecture method can be made effective by incorporating with other teaching strategies (such as questioning answering, etc.) then these two strategies (reading and lecture) can be beneficial for both students and teachers as well. But physical quietness is intrinsic to these activities, not to the students who do them. A book just sits still, after all, unless a student makes an effort to read it, and a lecture may not be heard unless a student makes the effort to listen to it.

Topic: 224- Advance organizers:-

- **Advance Organizers is a brief overviews or introductions to new material before the material itself is presented**
- **Advance Organizers partially organize the material on behalf of the students, so that they know where to put it all, so to speak, as they learn them in more detail**
- In spite of these problems, there are strategies for making lectures and readings effective. A teacher can be especially careful about organizing information for students, and she can turn part of the mental work over to students themselves. An example of the first approach is the use of **advance organizers.**
- Advance organizers are a brief overviews or introductions to new material before the material itself is presented (Ausubel, 1978).
- Textbook authors (including ourselves) often try deliberately to insert periodic advance organizers to introduce new sections or chapters in the text.
- When used in a lecture, advance organizers are usually statements in the form of brief introductory remarks, though sometimes diagrams showing relationships among key ideas can also serve the same purpose (Robinson, et al., 2003).
- Whatever their form, advance organizers partially organize the material on behalf of the students, so that they know where to put it all, so to speak, as they learn them in more detail.

Topic: 225- Recalling and relating prior knowledge: -

- **Children and youth become more experienced in their academics; they tend to relate new information to previously learned information more frequently and automatically**
- **When presenting new concepts or ideas, the teacher can relate them to previously learned ideas deliberately essentially modeling a memory strategy that students learn to use for themselves**

- **Another strategy for improving teacher-directed instruction is to encourage students to relate the new material to prior familiar knowledge.** When one of us (Kelvin) first learned a foreign language (in his case French), for example, he often noticed similarities between French and English vocabulary. A French word for picture, for example, was image, spelled exactly as it is in English. The French word for splendid was splendide, spelled almost the same as in English, though not quite. Relating the French vocabulary to English vocabulary helped in learning and remembering the French.

- **As children and youth become more experienced in their academics, they tend to relate new information to previously learned information more frequently and automatically** (Goodwin, 1999; Oakhill, Hartt, & Samols, 2005). But teachers can also facilitate students' use of this strategy. **When presenting new concepts or ideas, the teacher can relate them to previously learned ideas deliberately essentially modeling a memory strategy that students learn to use for themselves.** In a science class, for example, she can say, this is another example of…, which we studied before"; in social studies she can say, remember what we found out last time about the growth of the railroads? We saw that…‖

- **If students are relatively young or are struggling academically, it is especially important to remind them of their prior knowledge**. Teachers can periodically ask questions like —What do you already know about this topic?" or —How will your new knowledge about this topic change what you know already?" Whatever the age of students, connecting new with prior knowledge is easier with help from someone more knowledgeable, such as the teacher. When learning algorithms for multiplication, for example, students may not at first see how multiplication is related to addition processes which they probably learned previously (Burns, 2001). But if a teacher takes time to explain the relationship and to give students time to explore it, then the new skill of multiplication may be learned more easily.

Topic: 226- Elaborating Information: -

- **Elaborating new information means asking questions about the new material, inferring ideas and relationships among the new concepts. Such strategies are closely related to the strategy of recalling prior knowledge**
- **Elaboration enriches the new information and connects it to other knowledge.**
- **In this sense elaboration makes the new learning more meaningful and less arbitrary**
- Elaborating new information means asking questions about the new material, inferring ideas and relationships among the new concepts. Such strategies are closely related to the strategy of recalling prior knowledge.
- Elaboration enriches the new information and connects it to other knowledge.
- In this sense elaboration makes the new learning more meaningful and less arbitrary.
- A teacher can help students use elaboration by modeling this behavior. The teacher can interrupt his or her explanation of an idea, for example, by asking how it relates to other ideas, or by speculating about where the new concept or idea may lead. He or she can also encourage students to do the same, and even give students questions to guide their thinking. When giving examples of a concept, for example, a teacher can hold back from offering all of the examples, and instead ask students to think of additional examples themselves. The same tactic can work with assigned readings; if the reading includes examples, the teacher can instruct students to find or make up additional examples of their own.

Topic: 227- Organizing new information: -

- **Ask students to outline information read in a text or heard in a lecture**
- **Outlining works especially well when the information is already organized somewhat hierarchically into a series of main topics, each with supporting subtopics or sub points.**

- **Outlining is basically a form of the more general strategy of taking notes, or writing down key ideas and terms from a reading or lecture.**
- There are many ways to organize new information that are especially well-suited to teacher-directed instruction.
- A common way is simply to ask students to **outline information** read in a text or heard in a lecture. Outlining works especially well when the information is already organized somewhat hierarchically into a series of main topics, each with supporting subtopics or subpoints.
- Outlining is basically a form of the more general strategy of **taking notes**, or writing down key ideas and terms from a reading or lecture.
- Research studies find that that the precise style or content of notes is less important that the quantity of notes taken: more detail is usually better than less (Ward & Tatsukawa, 2003). Written notes ensure that a student thinks about the material not only while writing it down, but also when reading the notes later. These benefits are especially helpful when students are relatively inexperienced at school learning in general (as in the earlier grade levels), or relatively inexperienced about a specific topic or content in particular. Not surprisingly, such students may also need more guidance than usual about what and how to write notes. It can be helpful for the teacher to provide a note-taking guide, like the ones shown in below-attached

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Exhibit 9.1: Two note taking guides

9.2: Notes on Science Experiment

1. Purpose of the experiment (in one sentence):
2. Equipment needed (list each item and define any special terms):
   1. _____
   2. _____
   3. _____
   4. _____
3. Procedure used (be specific!):
4. _____
5. Results (include each measurement, rounded to the nearest integer):

1. Observation #1	
1. Observation #2	
1. Observation #3	
1. Observation #4	
1. Average measurement, #1-4:	

9.3: Guide to Notes About Tale of Two Cities:

1. Main characters (list and describe in just a few words):
   1. _____
   2. _____
   3. _____
   4. _____
2. Setting of the story (time and place):
3. Unfamiliar vocabulary in the story (list and define):
   1. _____
   2. _____
   3. _____
   4. _____
4. Plot (write down only the main events):
   1. _____
   2. _____
   3. _____
   4. _____
5. Theme (or underlying "message") of the story:

Lecture: 41

(Topics: 228-237)

Topic: 228- Concept maps-1: -

Topic: 229- Concept maps-2: -

Topic: 230- Mastery learnin-1: -

Topic: 231- Mastery learning-2: -

Topic: 232- Madeline Hunter's effective teaching model-1: -

Topic: 233- Madeline Hunter's effective teaching model-2: -

Topic: 234- Madeline Hunter's effective teaching model-3: -

Topic: 235- What are the limits of teacher-directed instruction?: -

Topic: 236- Direct instruction-1: -

Topic: 237- Direct instruction-2: -

Topic 228: Concept Maps-1: -

Concept maps, also known as mind maps or cognitive maps, are graphical tools used to visually represent and organize knowledge or information around a central concept. They are a type of diagram that helps individuals to understand, analyze, and structure complex ideas and relationships between different concepts.

In a concept map, the central concept is placed at the center of the diagram, and related ideas or sub-concepts are connected to it through lines or arrows. Each concept is represented by a node or a box, and the relationships between concepts are depicted by connecting lines with descriptive phrases or linking words. Most Concept maps depict ideas as boxes or circles (also called nodes), which are structured hierarchically and connected with lines or arrows (also called arcs).

Topic 229: Concept Maps-2: -

Creating a concept map can be a straightforward process when broken down into five easy steps:

Choose the Main Concept: Start by deciding on the central idea or theme you want to focus on. This concept will be placed at the center of your concept map and will serve as the main topic.

Identify Key Concepts: Identify and list the key concepts or subtopics related to the main concept. These are the main branches that will radiate out from the central idea. Write each concept in a separate box or node.

Connect Concepts with Lines: Draw lines or arrows to connect the main concept to its key sub-concepts. Each line should have a descriptive label that explains the relationship between the connected concepts. This helps to clarify how the ideas are related.

Organize the Layout: Arrange the concepts and sub-concepts in a logical and visually pleasing manner. Keep related concepts closer together and use spacing to create a clear hierarchy. You can also use colors and symbols to differentiate between different categories or types of concepts.

Fine-Tune and Review: Review your concept map to ensure it effectively represents the relationships between the concepts. Make any necessary adjustments to improve clarity and coherence. Check if the map accurately reflects your understanding of the topic and makes logical sense.

By following these five steps, you can create a well-structured and informative concept map that visually communicates the connections and relationships between different ideas in a clear and concise manner.

Topic 230: Mastery Learning-1: -

Mastery learning is an educational approach that focuses on ensuring students attain a high level of proficiency or mastery in a specific subject or skill before moving on to more advanced topics. The concept was first introduced by educational psychologist Benjamin Bloom in the 1960s and has since gained popularity in various educational settings. Mastery learning possess two challenges

Ethical Considerations: One ethical challenge related to mastery learning is ensuring equity and fairness in the educational process. Since students' progress at their own pace, there may be concerns about some students falling behind or being stigmatized if they require additional time and support to achieve mastery. This could lead to potential feelings of inadequacy or frustration among students who are struggling.

Additionally, teachers must ensure that all students have equal access to resources and support necessary to succeed in the mastery learning environment. This could be challenging in schools with limited resources or in disadvantaged communities where some students may have more barriers to learning than others.

Implementation Approach: Another challenge lies in the implementation of mastery learning. It requires a significant shift in traditional teaching methods and the adoption of a personalized, student-centered approach. Some teachers may find it difficult to adjust to this new way of teaching and managing the classroom, especially if they are accustomed to a more structured and uniform approach.

Implementing mastery learning effectively also requires proper training and professional development for teachers. They need to be equipped with the skills and strategies to differentiate

instruction, provide timely and effective feedback, and manage the diverse learning needs of their students.

Additionally, the assessment and grading process in mastery learning can be complex, as students may need multiple attempts to demonstrate mastery. Teachers must strike a balance between giving students enough opportunities for growth and ensuring that high standards for mastery are maintained.

Topic 231: Mastery Learning-2: -

This term refers to an instructional approach in which all students learn material to an identically high level, even if some students require more time than others to do so. In mastery learning, the teacher directs learning, though sometimes only in the sense of finding, writing, and orchestrating specific modules or units for students to learn. In one typical mastery learning program, the teacher introduces a few new concepts or topics through a brief lecture or teacher-led demon.

In mastery learning, the role of the teacher is indeed crucial, but it differs from the traditional "one-size-fits-all" approach to teaching. In mastery learning, the teacher takes on the role of a facilitator and guide, providing personalized support to students as they progress through the curriculum at their own pace. The teacher plays an active role in designing the curriculum and breaking it down into specific learning objectives or modules. These learning objectives represent the essential concepts or skills that students need to master. The teacher carefully plans the sequence of these objectives, ensuring that they build upon one another logically.Before students embark on their mastery learning journey, the teacher identifies the prerequisites required for each learning objective. These prerequisites are the foundational knowledge or skills that students need to possess before tackling a particular concept or skill. The teacher can then provide additional support or remediation for students who lack these prerequisites. Once the curriculum is designed, the teacher creates personalized learning paths for each student based on their current level of understanding and progress. Students may start at different points in the curriculum, depending on their existing knowledge and skills. The teacher guides each student on their unique learning journey, providing appropriate resources, activities, and assessments aligned with their individual needs.

Topic 232: Madeline Hunter's Effective teaching Model-1: -

Madeline Hunter's Effective Teaching Model is a widely recognized and influential instructional framework that was developed by Madeline Hunter, an American educator, and author. The model was first introduced in the 1970s and gained popularity in the field of education due to its systematic and structured approach to teaching.

The "Seven Step Lesson Plan" of the Madeline Hunter's Effective Teaching Model are listed below.

Anticipatory Set (Focus): The teacher sets the stage for the lesson by activating students' prior knowledge and capturing their interest. This step aims to create relevance and context for the new material being taught.

Objective (Learning Outcomes): The teacher clearly states the lesson's learning objectives and what students are expected to achieve by the end of the lesson. This step provides a clear focus for the instruction.

Input: In this step, the teacher delivers the new information or content to the students. It can involve lectures, discussions, demonstrations, or other instructional methods.

Modeling: The teacher demonstrates the skills or processes that students need to learn. This step shows students how to approach the learning task effectively.

Checking for Understanding: The teacher assesses whether students have understood the material presented. This can be done through various formative assessment techniques, such as asking questions, conducting quizzes, or having students summarize the key points.

Guided Practice: Students engage in structured activities where they apply the newly acquired knowledge or skills. The teacher provides support and guidance during this practice phase.

Independent Practice: Students work independently to reinforce their learning. This step allows students to practice what they have learned on their own.

Closure: The teacher reviews the key points of the lesson, emphasizes the main learning objectives, and provides a conclusion to the lesson.

Topic 233: Madeline Hunter's Effective teaching Model-2: -

Let's create an example of a "Seven Step Lesson Plan" using Madeline Hunter's Effective Teaching Model for teaching a simple math concept of addition to elementary school students.

Objective: Students will be able to add two-digit numbers together using the regrouping method.

Standard: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Anticipatory Set (Focus): Show the students a short video or a real-life example of combining two groups of objects to create a larger group. Ask questions to activate their prior knowledge on addition, such as "How can we add two groups of things together?" or "What happens when you add numbers?"

Input: Explain to the students that addition is a way to combine two or more numbers to find the total. Introduce the concept of regrouping (carrying over) when adding two-digit numbers and show examples of how it works.

Modeling: Write a two-digit addition problem on the board, such as 37 + 48, and demonstrate the steps of regrouping. Walk the students through the process of adding the ones place first, and then the tens place, carrying over when necessary.

Checking for Understanding: Ask the students to solve a few similar problems individually on their mini-whiteboards or notebooks. Circulate around the class to observe their work and identify any misconceptions.

Guided Practice: Divide the students into small groups and give each group a set of two-digit addition problems to solve. Provide support and guidance as they work through the problems together. Encourage them to use the regrouping method when necessary.

Closure: Review the key points of the lesson, emphasizing the steps of regrouping in addition. Summarize the concept and provide an opportunity for students to ask any remaining questions.

Independent Practice: Assign a set of two-digit addition problems as homework. Students should complete the problems independently, using the regrouping method they learned in class.

Topic 234: Madeline Hunter's Effective teaching Model-3: -

While using Madeline Hunter's Effective Teaching Model, there are several important considerations and best practices to keep in mind to enhance its effectiveness. Here are some key points to take care of:

Prepare Students to Learn: Set the stage for learning by engaging students' prior knowledge and creating a positive and conducive learning environment. Use an anticipatory set to activate their interest and establish relevance for the upcoming lesson.

Present Information clearly and explicitly: Deliver the new information or content in a clear and straightforward manner. Avoid ambiguity and use language appropriate to the students' grade level and understanding. Incorporate visuals, real-life examples, and practical applications to aid comprehension.

Check for Understanding and Give Guided Practice: Continuously assess students' understanding throughout the lesson. Use formative assessment techniques, such as asking questions, using quizzes, or having students explain the concepts in their own words. Offer guided practice to help students apply what they have learned under the teacher's guidance and support.

Provide for Independent Practice: After guided practice, allow students to work independently to reinforce their learning. Assign relevant exercises or tasks that align with the lesson's objectives and encourage critical thinking and problem-solving.

Independent Study: Encourage students to take responsibility for their learning beyond the classroom. Assign additional reading materials, research topics, or projects that allow them to explore the subject matter further independently.

Self-Reflection: Encourage students to reflect on their learning progress and identify areas of strength and areas that need improvement. Self-reflection can promote meta cognition and help students become more aware of their learning strategies and progress.

Topic 235: What is the Limits of Teacher-Directed Instruction? : -

Teacher-directed instruction, while it can be an effective teaching approach in many situations, also has its limitations. Some of the main limits of teacher-directed instruction include:

- Requires well-organized units of Instruction in Advance
- Organizing material on behalf of the students encourages students to be passive
- Direct instruction approaches sometimes contradict their own premises by requiring students to do a bit of cognitive organizational work of their own
- In teacher-directed instruction, students are passive recipients of information, and their role is mainly to listen, absorb, and follow the teacher's directions. This approach may limit students' opportunities to take ownership of their learning and develop critical thinking skills.
- It often follows a predetermined path and pace, which may not suit the diverse learning needs and styles of all students. Some students may struggle to keep up, while others might feel bored or disengaged if the instruction is not challenging enough.

Topic 236: Direct Instruction-1: -

The Direct Instruction (DI) approach is a highly structured and teacher-centered instructional method designed to deliver clear and explicit information to students. It emphasizes systematic instruction, teacher-led lessons, and carefully planned curriculum materials. Direct Instruction is known for its efficiency in conveying knowledge and skills to students in a straightforward and organized manner.

- Instructional approaches that are structured, sequenced, and led by teachers
- The presentation of academic content to students by teachers, such as in a lecture or demonstration
- Teacher-directed instruction involves explicitly teaching mathematical rules, concepts, principles, and problem solving strategies.
- This often includes modeling a variety of examples and guiding students during their review and practice.

Topic 237: Direct Instruction-2: -

The activities a teacher can use in direct instruction to present information to students are discussed below:

Announcements:

The teacher can verbally communicate important updates, reminders, or schedule changes at the beginning of the class or through digital platforms like learning management systems, email, or class websites. Announcements can also be written on the board or projected on the screen for students to read.

Module/Unit Introductions:

The teacher can start a new module or unit by providing an overview of the content and learning objectives. This can be done through a brief lecture or a presentation. The teacher may use visual aids like slides, charts, or images to illustrate key points and create interest in the upcoming topics.

Descriptions/Modeling of Assignments and Learning Activities:

Before assigning tasks or activities, the teacher can provide clear instructions and expectations to students. The teacher can model how to approach the assignment, demonstrate problem-solving techniques, or walk through examples to help students understand the process.

Written or Video Lectures:

The teacher can deliver direct instruction through traditional written lectures, where the content is presented in a structured written format. Alternatively, video lectures can be created and shared with students. These recorded videos allow students to revisit the material at their own pace.

Demonstration Videos:

In subjects like science, art, or practical skills, the teacher can use demonstration videos to show how certain processes or techniques are performed. These videos allow students to see the steps clearly and understand the correct procedures.

Presentations:

The teacher can use presentations to organize information and present it in a visually engaging manner. Presentations can include slides with text, images, diagrams, and multimedia elements to support the content.

Discussions Moderated by Instructors:

The teacher can lead class discussions on specific topics to encourage active participation and critical thinking among students. The teacher can pose thought-provoking questions, facilitate the exchange of ideas, and provide guidance to keep the discussion focused and productive.

Interactive Tutorials:

Interactive tutorials or simulations can be used to engage students actively in the learning process. These tutorials may include interactive quizzes, virtual labs, or problem-solving exercises that provide immediate feedback to students.

In direct instruction, the teacher takes a central role in presenting information and guiding the learning process. The activities mentioned above help ensure that students receive clear and explicit instruction, making the learning experience more effective and structured. However, it's essential to balance direct instruction with other instructional methods to promote active engagement and deeper understanding among students

Lecture: 42

(Topics: 238-247)

Topic: 238- Student-centered models of learning: -

Topic: 239- Inquiry learning-1: -

Topic: 240- Inquiry learning-2: -

Topic: 241- Cooperative learning-1: -

Topic: 242- Cooperative learning-2: -

Topic: 243- Cooperative learning-3: -

Topic: 244- Examples of cooperative and collaborative learning: -

Topic: 245- Jigsaw classroom: -

Topic: 246- Motivating students to learn-1: -

Topic: 247- Motivating students to learn-2: -

Topic: 238- Student-centered models of learning: -

The student-centered model of learning is an approach to education that places the student at the center of the learning process. In this model, the focus is shifted from the traditional teacher-led instruction to a more active and engaging learning experience for students. Student-centered learning gives students the opportunity to decide two things: what material they learn and how they learn it. In a student-centered model, the teacher acts as a facilitator or guide rather than the sole authority figure in the classroom. The goal is to empower students to take ownership of their learning, develop critical thinking skills, and become active participants in the educational process. In contrast to teacher-centered approaches, SCL engages students as leaders and decision- makers in their own learning. This concept is also sometimes referred to as personalized learning.

Topic: 239- Inquiry learning-1: -

Inquiry-based learning is a learning process that engages students by making real-world connections through exploration and high level questioning. It is an approach to learning that encourages students to engage in problem-solving and experiential learning. Inquiry learning encourages students to develop their own questions, investigate topics of interest, and construct knowledge through firsthand experiences and interactions with the learning environment. Rather than passively receiving information from teachers, students are actively involved in the learning process, making observations, forming hypotheses, conducting experiments, analyzing data, and drawing conclusions.

Inquiry-based learning has four types: Confirmation, structured, guided and open inquiry. The detail is given below;

Confirmation Inquiry: It is a type of inquiry-based learning that focuses on verifying or confirming existing knowledge or hypotheses. In confirmation inquiry, the primary objective is to collect evidence that supports or validates a particular claim, theory, or explanation. In this approach, students are typically provided with a hypothesis or statement, and their task is to design and conduct experiments or investigations to gather data that either supports or refutes the given hypothesis. The emphasis is on systematically testing and confirming existing knowledge or understanding.

Structured Inquiry: In structured inquiry, teachers provide a clear framework or procedure for students to follow while conducting their investigations. The teacher poses a question or problem, and students design and carry out experiments or investigations to explore and find answers within the provided structure. This approach allows students to develop their inquiry skills while still receiving guidance and support from the teacher.

Guided Inquiry: Guided inquiry provides students with a general question or problem but allows them more independence and autonomy in designing and conducting their investigations. The teacher acts as a facilitator, offering guidance and support as students develop their research questions, plan their investigations, and analyze their findings. This approach encourages students to take ownership of their learning and develop critical thinking skills.

Open Inquiry: Open inquiry offers the highest level of student autonomy. In this approach, students formulate their own research questions or problems to investigate, design their experiments or investigations, collect and analyze data, and draw conclusions. The teacher's role is primarily that of a mentor or advisor, providing resources, feedback, and guidance as needed. Open inquiry fosters creativity, independent thinking, and problem-solving skills.

Topic: 240- Inquiry learning-2: -

Strategies of inquiry learning refer to the specific approaches, techniques, and methods used to facilitate and promote the process of inquiry-based learning. These strategies are designed to encourage students to actively engage in exploring and investigating a topic or problem, develop critical thinking and problem-solving skills, and construct their own understanding of the subject matter. Some of the strategies are discussed below;

Case studies

The case study strategy of inquiry learning involves the in-depth examination and analysis of a specific real-world scenario or situation. It is a method that allows students to explore complex problems or situations, apply critical thinking skills, and develop a deeper understanding of the subject matter through active investigation. In a case study, students are typically presented with a detailed description of a real or hypothetical situation that poses a challenge or problem. They are then tasked with analyzing the case, gathering relevant information, and formulating possible solutions or explanations based on the available evidence.

Group projects:

The group project strategy of inquiry learning involves collaborative work among students in small groups to explore a specific topic, problem, or research question. It encourages students to actively engage in the inquiry process, share ideas, collaborate on tasks, and collectively construct knowledge through their interactions and contributions. In a group project, students work together to investigate a chosen topic or address a specific problem. They collaborate to gather information, analyze data, conduct experiments, or carry out research activities relevant to their inquiry. The

group members share responsibilities, exchange perspectives, and work towards a common goal of understanding and addressing the inquiry topic.

Research projects:

The research project strategy of inquiry learning involves students engaging in independent investigation and exploration of a specific research question or topic. It emphasizes the development of research skills, critical thinking, and knowledge acquisition through a systematic and self-directed inquiry process. In a research project, students formulate their own research question, design a research plan, gather data or information, analyze findings, and draw conclusions based on their research. This strategy encourages students to actively engage in the process of inquiry-based learning and develop a deeper understanding of the subject matter.

Field work

The field work strategy of inquiry learning involves students actively engaging in firsthand experiences and investigations in real-world settings outside of the traditional classroom. It provides opportunities for students to directly observe, collect data, and make connections to the concepts or topics they are studying, enhancing their understanding and application of knowledge. In field work, students venture into the field, which could be a natural environment, a community setting, a cultural site, or any relevant location related to their inquiry topic. They engage in data collection, observations, interviews, surveys, experiments, or other activities to gather information and gain insights that cannot be easily replicated in the classroom.

Topic: 241- Cooperative learning-1: -

Cooperative learning is a teaching method where students of mixed levels of ability are arranged into groups and rewarded according to the group's success, rather than the success of an individual member. In a cooperative learning setting, students typically have specific roles or tasks that contribute to the overall success of the group. They interact, discuss ideas, share knowledge, and provide feedback to one another. The goal is not only to enhance individual learning but also to promote social skills, teamwork, and positive interdependence among group members. Cooperative learning promotes active engagement, critical thinking, and communication skills. It encourages students to learn from each other, fostering a deeper understanding of the subject matter. It also helps develop important interpersonal skills, such as effective communication, active listening, and conflict resolution. An example of a very popular cooperative learning activity that teachers use is jigsaw, where each student is required to research one section of the material and then teach it to other members of the group.

Topic: 242- Cooperative learning-2:-

Five basic elements that are typically required in any cooperative learning lesson are:

Positive Interdependence:

Students must rely on each other to achieve a common goal or complete a task. They understand that their success is dependent on the success of their group mates. This element encourages collaboration and fosters a sense of collective responsibility.

Individual Accountability:

Each student is held accountable for their own learning and contribution to the group. Assessments and evaluations consider individual effort and understanding, ensuring that all students actively participate and contribute to the group's success.

Group Interaction and Communication:

Students engage in frequent and meaningful interactions with their groupmates. They discuss ideas, share information, explain concepts to each other, and provide constructive feedback. Communication skills, active listening, and effective collaboration are promoted within the group.

Social Skills Development:

Cooperative learning provides opportunities for students to develop social skills such as teamwork, leadership, empathy, and conflict resolution. They learn to work effectively with others, respect diverse perspectives, and engage in positive interactions within the group.

Group Processing:

Students reflect on their group's performance, discuss how effectively they worked together, and identify areas for improvement. Group processing allows students to evaluate their collaborative skills, develop strategies for better teamwork, and make adjustments for future cooperative learning experiences.

These elements work together to create a cooperative learning environment that promotes active engagement, critical thinking, effective communication, and social growth among students.

Topic: 243- Cooperative learning-3:-

Cooperative learning offers numerous merits and benefits for both students and the learning environment. Some of the key merits of cooperative learning include:

- Cooperative learning increases individual responsibility in employees.
- They know that they have a specific task they should perform for the entire team to succeed.
- Cooperative learning promotes a deeper understanding of the subject matter. Through active engagement, students actively construct their knowledge by explaining concepts, discussing ideas, and applying their understanding in real-world scenarios.
- Students develop essential social skills such as communication, teamwork, leadership, empathy, and conflict resolution. They learn to work effectively with diverse peers, appreciate different perspectives, and collaborate towards a common goal.

To implement cooperative learning effectively, you can consider the following eight principles:

1. Heterogeneous grouping

Heterogeneous grouping is a key principle of cooperative learning that involves forming groups with students of diverse abilities, backgrounds, and skill levels. In this approach, students with different strengths and weaknesses are intentionally placed together in order to maximize learning opportunities and promote collaboration.

2. Teaching collaborative skills

Teaching collaborative skills is an important principle of cooperative learning. It involves explicitly teaching students the necessary skills and strategies to effectively work together in a group setting. By focusing on collaborative skills, students can develop the ability to communicate, collaborate, and solve problems collectively.

3. Group Autonomy

Group autonomy is a principle of cooperative learning that involves providing students with a degree of independence and decision-making authority within their learning groups. It empowers students to take ownership of their learning, encourages active engagement, and fosters a sense of responsibility and accountability.

4. Maximum peer interactions

The principle of maximum peer interactions in cooperative learning emphasizes creating ample opportunities for students to engage in meaningful interactions with their peers. It aims to foster collaboration, promote active learning, and enhance students' understanding of concepts through peer discussions and interactions.

5. Equal opportunity to participate

The principle of equal opportunity to participate in cooperative learning emphasizes ensuring that all students have an equitable chance to contribute, engage, and actively participate in the learning process. It aims to create an inclusive and supportive environment where every student's voice is valued.

6. Individual accountability

The principle of individual accountability in cooperative learning emphasizes that each student is responsible for their learning and contributes actively to the group's success. It ensures that every student is held accountable for their individual effort, participation, and understanding within the collaborative learning environment.

7. Positive interdependence

The principle of positive interdependence in cooperative learning emphasizes creating a sense of shared responsibility and mutual reliance among group members. It encourages students to understand that their individual success is closely tied to the success of the group as a whole.

8. Cooperation

The cooperation principle is at the core of cooperative learning and emphasizes the importance of collaboration, teamwork, and shared effort among students. It promotes a cooperative and supportive learning environment where students work together towards common goals.

Topic: 244- Examples of cooperative and collaborative learning: -

Cooperative learning and collaborative learning are both student-centered approaches that involve students working together towards common goals. Some of the examples of cooperative and collaborative teaching strategies are discussed below;

Think-Pair-Share

Think-pair-share cooperative teaching strategy is an instructional technique that promotes active engagement, collaboration, and discussion among students. It involves the following steps:

Think: The teacher presents a question, problem, or prompt related to the lesson content. Students are given time to individually think about their response or solution. This step encourages independent thinking and reflection.

Pair: Students are then paired up with a partner. They share their thoughts, ideas, or solutions with each other in a structured discussion. This step promotes peer-to-peer interaction, active listening, and the exchange of perspectives.

Share: After the pair discussion, the teacher facilitates a whole-class discussion where pairs share their ideas or solutions with the entire class. Students can present their partner's ideas or contribute their own thoughts. The teacher guides the sharing process, encourages respectful listening, and facilitates the exploration of different viewpoints.

Jigsaw

The Jigsaw cooperative teaching strategy is an instructional technique that promotes cooperative learning and interdependence among students. It involves dividing the class into small groups and assigning each group member a unique piece of information or expertise related to a larger topic or concept. Students then become "experts" in their assigned area and collaborate with members from other groups who have different expertise. Together, they work towards mastering the entire topic or concept.

Tea Party

The Tea party cooperative teaching strategy is a variation of the traditional cooperative learning approach. It involves creating a simulated "tea party" scenario where students engage in collaborative discussions and share their ideas or opinions on a specific topic. The strategy aims to promote active participation, respectful dialogue, and the exchange of diverse viewpoints.

Round Robin

The Round Robin cooperative teaching strategy is an instructional technique that promotes equal participation and collaboration among students in a structured and systematic way. It ensures that each student has an opportunity to contribute their ideas or responses in a rotation.

Write Around

The Write Around cooperative teaching strategy is an instructional technique that encourages collaborative writing and active engagement among students. It involves the sequential writing and sharing of ideas within a group.

Topic: 245- Jigsaw classroom: -

Jigsaw is a cooperative learning strategy that enables each student of a ―home‖ group to specialize in one aspect of a topic (For example, one group studies habitats of rainforest animals, other group studies predators of rainforest animals). Jigsaw encourages cooperation and active learning and promotes valuing all students‗ contributions. Jigsaw can be an efficient cooperative learning strategy. Although the jigsaw assignment takes time in class, the instructor does not need to spend as much time lecturing about the topic.

How the Jigsaw Classroom works:
Form Expert Groups: Divide the class into small groups, typically consisting of four to six students. Assign each group member an expert area or topic related to a larger concept or text.

Expert Study: Within their expert groups, students study and become knowledgeable about their assigned topic. They become "experts" in that area, gathering information and understanding the key concepts.

Jigsaw Groups: The students then leave their expert groups and form new groups called "jigsaw groups." In the jigsaw groups, each member represents a different expert area. This means that each jigsaw group will have at least one student who is an expert in each assigned topic.

Teach and Learn: In their jigsaw groups, students take turns teaching their assigned topics to their group mates. Each student shares their knowledge, explains the concepts, and answers questions. The other group members actively listen, ask clarifying questions, and take notes.

Reassemble Expert Groups: After the jigsaw group discussion, students return to their original expert groups. In their expert groups, each student shares the information they learned from the jigsaw group discussion. This helps ensure that all students in the expert group have a comprehensive understanding of the entire topic or concept.

Here are examples of each step in the Jigsaw Classroom method:

Form Expert Groups: Let's say the topic of study is the Solar System. The class is divided into expert groups with the following assignments:

Expert Group 1: The Sun

Expert Group 2: Mercury, Venus, and Earth

Expert Group 3: Mars, Jupiter, and Saturn

Expert Group 4: Uranus, Neptune, and Pluto

Expert Study: Within their expert groups, students conduct research and study their assigned topics. For example:

Expert Group 1 researches the Sun, gathers information on its composition, characteristics, and role in the Solar System.

Expert Group 2 focuses on Mercury, Venus, and Earth, studying their unique features, atmospheres, and relative distances from the Sun.

Expert Group 3 delves into Mars, Jupiter, and Saturn, examining their physical characteristics, moons, and notable phenomena.

Expert Group 4 explores Uranus, Neptune, and Pluto, investigating their properties, orbits, and historical discoveries.

Jigsaw Groups: The class is now reorganized into jigsaw groups, where each group contains one member from each expert group:

Jigsaw Group 1: Expert 1 from Group 1, Expert 1 from Group 2, Expert 1 from Group 3, and Expert 1 from Group 4.

Jigsaw Group 2: Expert 2 from Group 1, Expert 2 from Group 2, Expert 2 from Group 3, and Expert 2 from Group 4.

Jigsaw Group 3: Expert 3 from Group 1, Expert 3 from Group 2, Expert 3 from Group 3, and Expert 3 from Group 4.

Teach and Learn: In their jigsaw groups, students take turns teaching their expertise to their peers:

In Jigsaw Group 1, Expert 1 from Group 1 teaches about the Sun, Expert 1 from Group 2 teaches about Mercury, Venus, and Earth, and so on.

Each member of the jigsaw group listens, asks questions, and learns from the expertise shared by their peers.

The process continues with Expert 2 and Expert 3 in subsequent rounds, where they teach their respective areas of expertise.

Reassemble Expert Groups: Finally, the class reconvenes the original expert groups:

Expert Group 1 members (the Sun experts) share what they have learned about the other celestial bodies with their group members.

Expert Group 2, 3, and 4 members do the same, sharing the knowledge they gained in their jigsaw groups.

This step allows for a comprehensive review and consolidation of the material within the expert groups.

These examples illustrate how the Jigsaw Classroom method can be applied in the context of studying the Solar System. Remember that the specific topics and assignments may vary depending on the subject being studied and the objectives of the lesson.

Topic: 246- Motivating students to learn-1: -

Motivating students to learn is essential for their academic success and overall development. Here are several techniques you can employ to motivate students:

Give students a sense of control:

Providing students with a sense of control involves giving them choices and opportunities to make decisions about their learning. This can include allowing them to select topics for projects, giving options for assignment formats, or encouraging them to set personal learning goals. By involving students in decision-making, they feel a sense of ownership and autonomy, which increases their motivation to learn.

Be clear about learning objectives:

Clearly communicate the learning objectives to students. When students understand what they are expected to learn and why it is important, they are more likely to engage actively in the learning process. Clear objectives help students see the purpose and relevance of their efforts, providing motivation to achieve those goals.

Create a threat-free environment:

A threat-free environment is one where students feel safe to take risks, ask questions, and express their opinions without fear of judgment or negative consequences. Encouraging open dialogue, active listening, and respect for diverse perspectives helps students feel comfortable and supported. When students feel safe, they are more willing to participate and engage in learning activities.

Change your scenery:

Sometimes a change in the learning environment can boost motivation. Consider taking students outside for a class session, arranging the classroom differently, or organizing field trips related to the subject matter. Changing the scenery adds novelty and variety, making the learning experience more engaging and exciting.

Offer varied experiences:

Use a variety of teaching strategies and activities to cater to different learning styles and preferences. Incorporate group work, hands-on activities, multimedia presentations, discussions, and experiential learning opportunities. By offering varied experiences, students are more likely to stay engaged and motivated, as it appeals to their individual strengths and interests.

Use positive competition:

Healthy competition can motivate students to excel. Encourage friendly competitions that focus on personal improvement and growth rather than solely on winning. For example, you can create classroom games, challenges, or contests that promote teamwork, problem-solving, and skill

development. Positive competition fosters a sense of achievement and can spur students to push themselves further.

Offer rewards:

Rewards can be used to recognize and reinforce students' efforts and achievements. They can be tangible (such as certificates, small prizes, or classroom privileges) or intangible (like verbal praise or public recognition). Rewards should be meaningful and aligned with students' interests and values, encouraging them to strive for excellence and take pride in their accomplishments.

Give students responsibility:

Assign students meaningful responsibilities within the classroom, such as leading a discussion, organizing a project, or mentoring their peers. Providing opportunities for students to take on leadership roles and contribute to the learning community fosters a sense of purpose, autonomy, and accountability. It empowers students and enhances their motivation to learn.

By implementing these techniques, educators can create a positive and empowering learning environment that fosters students' intrinsic motivation and engagement.

Topic: 247- Motivating students to learn-2: -

Here are some other techniques you can employ to motivate students:

Promote growth mindset over fixed mindset:

Encourage students to adopt a growth mindset, which is the belief that abilities and intelligence can be developed through effort and practice. Help students understand that challenges and setbacks are opportunities for learning and growth, rather than indicators of failure. Emphasize the importance of perseverance, resilience, and a positive attitude towards learning. By promoting a growth mindset, students are more likely to embrace challenges, take risks, and persist in the face of obstacles.

Develop meaningful and respectful relationships with your students:

Building positive relationships with students is crucial for motivating them. Take the time to get to know your students individually, showing genuine care, empathy, and respect for their backgrounds, interests, and experiences. Establishing a supportive and trusting relationship creates a sense of belonging and fosters intrinsic motivation. When students feel valued and understood, they are more likely to be engaged and motivated to learn.

Grow a community of learners in your classroom:

Foster a collaborative and inclusive classroom environment where students feel like active participants in a community of learners. Encourage teamwork, peer support, and open communication among students. Create opportunities for students to collaborate, share ideas, and learn from one another. When students feel connected to their peers and understand that learning is a collective endeavor, it enhances motivation and engagement.

Establish high expectations and set clear goals:

Set high expectations for students' academic performance and behavior. Clearly communicate your expectations and academic standards, ensuring that students understand what is required of them. Along with high expectations, establish clear, specific, and achievable goals. Break down larger goals into smaller, manageable steps, providing students with a roadmap to success. Clear goals and high expectations motivate students to strive for excellence and give them a sense of direction.

Be inspirational:

As an educator, inspire your students through your passion, enthusiasm, and love for the subject matter. Share personal stories, real-world examples, and success stories that demonstrate the relevance and importance of what they are learning. Use motivational quotes, videos, and anecdotes to spark their curiosity and ignite their desire to learn. Your enthusiasm and belief in their potential can have a profound impact on students' motivation and drive.

By incorporating these techniques into your teaching practice, you can create a positive and motivating learning environment where students feel supported, engaged, and inspired to reach their full potential.

Lecture: 43

(Topics: 248-256)

Topic: 248- Communication for the classroom teacher-1: -

Topic: 249- Communication for the classroom teacher-2: -

Topic: 250- Creativity in the classroom: -

Topic: 251- Strategies for creativity in the class room-1: -

Topic: 252- Strategies for creativity in the class room-2: -

Topic: 253- Student diversity; Individual styles of learning-1: -

Topic: 254- Student diversity; Individual styles of learning-2: -

Topic: 255- Multiple intelligence-1: -

Topic: 256- Multiple intelligence-2: -

Topic: 248- Communication for the classroom teacher-1: -

Teacher communication in the classroom is incredibly important and plays a significant role in various aspects of the educational process. Effective communication helps teachers deliver clear instructions, explanations, and presentations to students. It ensures that students understand the learning objectives, tasks, and expectations, which promotes comprehension and engagement. Communication for the classroom teacher plays a crucial role in creating an effective and engaging learning environment. Here are some strategies to consider:

Create a safe environment:
Foster a supportive and inclusive atmosphere where students feel comfortable expressing their thoughts and ideas without fear of judgment. Encourage open dialogue, respect for different perspectives, and emphasize the value of diverse opinions.

Encourage teamwork:
Promote collaboration and teamwork among students by incorporating group activities, projects, and discussions. Assign group tasks that require active participation, cooperation, and problem-solving. Encourage students to listen to and learn from one another.

Don't stand at the front of the classroom:
Instead of constantly remaining at the front of the classroom, move around and interact with students. This helps create a sense of connection and accessibility. By circulating throughout the classroom, you can engage with students, address their questions, and provide individual attention when needed.

Use active listening exercises:

Incorporate activities that enhance active listening skills. For example, you can have students participate in partner or small group discussions where they must summarize each other's ideas. Another exercise is to have students take turns sharing their thoughts while others practice listening attentively and paraphrasing what they hear.

Provide positive feedback:
Regularly acknowledge and appreciate students' efforts and achievements. Offer specific and constructive feedback that highlights their strengths and areas for improvement. Recognize students' contributions, ideas, and unique perspectives in class discussions. Positive reinforcement can motivate students, boost their confidence, and foster a positive classroom atmosphere.

Remember, effective communication in the classroom involves active engagement, respect, and creating an environment where students feel valued and supported in their learning journey.

Topic: 249- Communication for the classroom teacher-2: -

Communication fosters active participation and engagement from students. When teachers effectively communicate with their students, they create a sense of connection and relevance to the subject matter. This can enhance students' motivation, interest, and willingness to participate in class activities and discussions. Communication between teachers and students helps build positive relationships based on trust, respect, and empathy. When teachers actively listen, provide feedback, and engage in meaningful conversations with students, they create a supportive and safe space for learning. This can enhance students' overall well-being, self-confidence, and willingness to seek help or guidance when needed. Here are some examples of teachers communication style;

Verbal communication: Teachers use spoken language to convey information, provide instructions, ask questions, facilitate discussions, and deliver lectures. This includes classroom discussions, giving explanations, asking and answering questions, and providing feedback to students.
Example: The teacher engages students in a class discussion about a historical event, encouraging them to share their thoughts and perspectives.
Written communication: Teachers communicate with students through written materials, such as handouts, assignments, quizzes, and exams. They may also provide written feedback on student work to offer guidance and highlight areas of improvement.
Example: The teacher distributes a worksheet to students, explaining the instructions and expectations in writing, and collects the completed worksheets for review and grading.
Non-verbal communication: Teachers use body language, facial expressions, and gestures to enhance their message or convey emotions. Non-verbal cues can help reinforce verbal communication and establish rapport with students.

Example: The teacher smiles and nods encouragingly while a student presents a project, indicating support and acknowledgement.

Whiteboard or blackboard usage: Teachers often write on whiteboards or blackboards to illustrate concepts, demonstrate problem-solving steps, or highlight important information during a lesson. This visual aid supports student understanding and retention.

Example: The teacher writes mathematical equations on the whiteboard, explaining each step aloud to help students grasp the problem-solving process.

Personal interactions: Teachers engage in one-on-one or small group discussions with students to provide individualized attention, guidance, and support.

Example: The teacher meets with a student during office hours to address questions, provide additional explanations, and offer personalized feedback on their assignments.

Topic: 250- Creativity in the classroom: -

Creating activities that foster creativity in the classroom can be a great way to encourage students' imagination, critical thinking, and problem-solving skills. Here are some activity ideas to promote creativity in the classroom:

Creativity always starts with imagination:
This emphasizes the importance of nurturing students' imagination. Encourage them to envision new possibilities, think outside the box, and explore different perspectives. Provide opportunities for imaginative thinking through storytelling, role-playing, or creative writing exercises.

Set up learning activities that allow students to explore their creativity in relevant, interesting, and worthwhile ways:
Design activities that connect with students' interests and real-world contexts. When learning is meaningful and engaging, students are more likely to tap into their creativity. For example, if studying a historical event, ask students to create a skit, write a poem, or design a visual representation to express their understanding.

Value creativity and celebrate and reward it:
Recognize and appreciate creative efforts in the classroom. Showcase students' creative work, share it with the school community, or organize events where students can present their creations. Acknowledge and celebrate their unique approaches and ideas. Providing positive reinforcement can motivate students to continue exploring their creativity.

Remove constraints for creativity and give students space and a framework in which they can be creative:
Provide an environment that minimizes limitations and restrictions on students' creativity. Offer them the freedom to explore ideas, take risks, and experiment without the fear of failure. However, it's essential to provide a framework or guidelines that provide structure and focus, ensuring that students' creativity remains purposeful and aligned with learning objectives.

By implementing these strategies, educators can cultivate a classroom culture that nurtures and promotes creativity. When students are encouraged to imagine, given opportunities to explore their creativity in meaningful ways, and supported in their creative endeavors, they are more likely to develop and express their creative potential.

Topic: 251- Strategies for creativity in the class room-1: -

Set time aside for Journaling:
Journaling provides students with a space to freely express their thoughts, ideas, and emotions. It promotes self-reflection, introspection, and creative thinking. By allocating specific time for

journaling activities, students can explore their creativity through writing, drawing, or even using multimedia tools.

Participate in five minutes of mindfulness each day:

Mindfulness exercises help students focus their attention and increase awareness of the present moment. Taking a few minutes for mindfulness at the beginning or end of each class can create a calm and focused atmosphere, allowing students to tap into their creativity more effectively.

Build brainstorming sessions:

Brainstorming is a powerful tool to generate ideas and encourage creative thinking. Allocate time for structured brainstorming sessions where students can freely share their ideas, build upon each other's suggestions, and explore different perspectives. This process stimulates creativity and encourages collaboration.

Use gamification to encourage participation:

Gamification involves incorporating game elements into the learning process to increase engagement and motivation. Design activities, quizzes, or challenges that require creative problem-solving. Introduce rewards, leaderboards, or badges to recognize and incentivize students' creative contributions.

Encourage risk-taking activities:

Creativity often thrives when students are willing to take risks and explore unconventional ideas. Create a supportive environment where students feel comfortable taking intellectual risks. Encourage them to think beyond the obvious solutions and embrace mistakes as learning opportunities.

Leave the classroom more often:

Taking students outside the traditional classroom setting can stimulate creativity by providing new environments and experiences. Conduct field trips, outdoor experiments, or nature walks that encourage students to observe, explore, and connect with the world around them. These experiences can inspire new ideas and perspectives.

Allow students to teach:

Giving students opportunities to teach their peers promotes creativity by requiring them to think deeply about the subject matter and find creative ways to communicate and engage their classmates. It encourages students to take ownership of their learning and develop their presentation and communication skills.

By implementing these strategies, educators can create an environment that fosters creativity and supports students in exploring their unique talents and ideas. Each strategy provides students with different opportunities to engage their creativity and develop their creative thinking skills.

Topic: 252- Strategies for creativity in the class room-2: -

Diverse activities in the classroom can foster creativity by providing students with varied opportunities to explore their imagination, engage in different modes of expression, and approach problems from multiple angles. Offering diverse activities allows students to express their creativity through various mediums. For example, some students may excel in visual arts, while others may prefer writing or performing. By incorporating activities like drawing, painting, writing, drama, music, or even coding, students can choose the mode of expression that resonates with them and allows their creativity to flourish. Providing diverse problem-solving activities challenges students to think critically and creatively. Some problems may require logical reasoning and analytical skills, while others may demand innovative thinking and out-of-the-box solutions. By presenting a range of problem-solving tasks, students can explore various strategies and develop flexible thinking skills.

Topic: 253- Student diversity; Individual styles of learning-1: -

Student diversity in styles of learning refers to the fact that students have different preferences and ways of processing information when it comes to learning new concepts and skills. While some students may learn best through visual aids and demonstrations, others may prefer hands-on activities or listening to lectures. Recognizing and accommodating these diverse learning styles is important for educators to ensure that all students have the opportunity to learn effectively.
There are several commonly recognized styles of learning, including:
Visual learners: Visual learners prefer to see information presented visually, such as through diagrams, charts, or images. They benefit from using visual aids to understand and remember concepts.
Auditory learners: Auditory learners learn best through listening and speaking. They prefer lectures, discussions, and audio materials to absorb information effectively. They may benefit from reading aloud or using mnemonic devices to remember information.
Kinesthetic learners: Kinesthetic learners, also known as tactile learners, learn best through hands-on experiences and physical activities. They thrive when they can engage in activities that involve movement, touch, and manipulation of objects.
Reading/Writing learners: Reading/writing learners have a preference for reading and writing to acquire and process information. They excel in activities such as reading textbooks, taking notes, and writing summaries or essays.
Social learners: Social learners thrive in group settings and learn best through interactions with others. They enjoy collaborative activities, discussions, and group projects where they can share ideas and learn from their peers.
It's important to note that these styles of learning are not mutually exclusive, and students may have a combination of preferences. In addition to these styles, other factors like culture, background, and individual experiences can also influence students' learning preferences.

Topic: 254- Student diversity; Individual styles of learning-2: -
Multiple intelligence refers to a theory describing the different ways students learn and acquire information. These multiple intelligences ranges from the use of words, numbers, pictures and music, to the importance of social interactions, introspection, physical movement and being in tune with nature. Multiple intelligences provide ample opportunities for group work in the classroom. Group work allows students to collaborate, learn from each other, and apply their unique intelligences to solve problems or complete tasks.

Topic: 255- Multiple intelligence-1: -

The concept of multiple intelligences was introduced by psychologist Howard Gardner. In 1983, Gardner proposed the theory of multiple intelligences in his book titled "Frames of Mind: The Theory of Multiple Intelligences." Gardner's theory challenged the traditional view of intelligence as a single, unitary ability measured by IQ tests. Instead, he argued that intelligence is a multifaceted construct and proposed the existence of multiple types of intelligences, each independent of the others.

Howard Gardner initially proposed seven intelligences in his theory of multiple intelligences and later added an eighth. Here are the intelligences as identified by Gardner:

Logical-mathematical intelligence: It relates to logical reasoning, problem-solving, and mathematical abilities.

Linguistic intelligence: This intelligence involves proficiency in language, including reading, writing, speaking, and listening.

Interpersonal intelligence: Interpersonal intelligence refers to the ability to understand and interact effectively with others. It involves skills such as empathy, communication, and social interaction.

Intrapersonal intelligence: Intrapersonal intelligence relates to self-awareness, introspection, and understanding one's own thoughts, feelings, and motivations.

Musical intelligence: Musical intelligence refers to the ability to appreciate, create, and understand music. It includes skills such as rhythm, pitch, melody, and composition.

Spatial intelligence: This intelligence involves visual perception, spatial awareness, and the ability to mentally manipulate and understand spatial relationships.

Bodily-kinesthetic intelligence: This intelligence involves physical coordination, control, and dexterity. It encompasses skills related to body movements, hand-eye coordination, and physical expression.

Naturalistic intelligence: Naturalistic intelligence involves sensitivity and understanding of the natural world, including plants, animals, and ecosystems.

It's important to note that Gardner's theory of multiple intelligences suggests that these intelligences can be present in different combinations and strengths within individuals. Each person may have a unique profile of intelligences, and they can vary in their relative strengths and preferences.

Topic: 256- Multiple intelligence-2: -

Howard Gardner's theory of multiple intelligences suggests that intelligence is not a single, fixed entity, but rather a collection of distinct cognitive abilities or intelligences. In his book "Frames of Mind: The Theory of Multiple Intelligences," Gardner proposed that there are multiple ways in which individuals can be intelligent.
Gardner initially identified seven intelligences: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, and intrapersonal. He later added naturalistic intelligence as an eighth category. According to Gardner, each of intelligence represents a different way of processing information and solving problems, and individuals may possess varying strengths and combinations of these intelligences.
Gardner argued that traditional measures of intelligence, such as IQ tests, predominantly focus on linguistic and logical-mathematical abilities, neglecting other important aspects of human cognition. He emphasized the importance of recognizing and valuing the diversity of intelligences present in individuals.
Gardner's theory suggests that these intelligences are relatively independent of each other, meaning that a person can excel in the one intelligence while not necessarily excelling in others. For example, someone may have strong linguistic intelligence, being adept with words and language, but may not possess the same level of proficiency in, say, musical or spatial intelligence.
The theory of multiple intelligences has significant implications for education. Gardner argued that by acknowledging and accommodating the diverse intelligences, educators can design instruction and assessment methods that cater to different learning styles and help students develop their unique

strengths. It promotes a more inclusive and personalized approach to education, recognizing that individuals have varied talents and aptitudes.

However, it's important to note that Gardner's theory has been subject to ongoing discussion and critique within the field of psychology. Some argue that the concept of multiple intelligences lacks empirical evidence and that the identified intelligences may not be entirely distinct from one another. Nonetheless, the theory has influenced educational practices by emphasizing the importance of recognizing and valuing diverse forms of intelligence in individuals.

Lecture: 44

(Topics: 257-263)

Topic: 257- Gender differences-1: -

Topic: 258- Gender differences-2: -

Topic: 259- Gender differences-3: -

Topic: 260- Gender differences-4: -

Topic: 261- Academic and cognitive differences in gender-1: -

Topic: 262- Academic and cognitive differences in gender-2: -

Topic: 263- Academic and cognitive differences in gender-3: -

Topic: 257- Gender differences-1: -

Gender differences refer to the variations or distinctions between males and females in terms of their biological characteristics, psychological traits, behaviors, and societal roles. These differences can be influenced by a combination of biological, social, and cultural factors. Females use more affiliate language whereas males use more assertive language in conversations with both parents and peers. Research suggests that males and females may exhibit variations in certain psychological traits and cognitive abilities. For example, some studies indicate that females tend to score higher on tests measuring verbal abilities and have better verbal memory, while males may perform better on spatial tasks.

Topic: 258- Gender differences-2: -

Some researches indicate following differences in males and females.

Women working longer than men: This statement is not universally true and can vary depending on the context. While women may spend more time on unpaid domestic work and caregiving responsibilities, men may spend more time in paid employment. However, gender roles and expectations can influence the division of labor within households and impact the amount of time women and men spend in work-related activities.

Inequality in employment and earnings: Gender inequality in employment and earnings refers to the disparity between men and women in terms of job opportunities, career advancement, and remuneration. Women, on average, tend to face challenges such as occupational segregation, limited access to higher-level positions, wage gaps, and discrimination in the workplace. These factors contribute to unequal opportunities and lower earnings for women compared to men.

Ownership inequality: Ownership inequality refers to the disparity in property and asset ownership between genders. Historically, women have faced obstacles in terms of property rights, land ownership, and access to financial resources. This inequality can limit women's economic independence and their ability to accumulate wealth and assets.

Survival inequality: Survival inequality can refer to various aspects such as differences in life expectancy and access to healthcare. In some contexts, women may face challenges related to healthcare access, maternal mortality rates, and gender-based violence, which can contribute to survival inequalities between genders.

Gender bias in the distribution of education and health: Gender bias in the distribution of education and health refers to unequal access and opportunities for education and healthcare based on gender. This can manifest in various ways, including disparities in school enrollment, literacy rates, access to quality healthcare, and reproductive health services. These biases can limit women's and girls' access to education and healthcare, affecting their overall well-being and opportunities for personal and professional development.

Gender inequality in freedom of expression: Gender inequality in freedom of expression relates to disparities in the ability of individuals, particularly women, to freely express themselves and participate in public discourse. Cultural norms, social expectations, and gender-based discrimination can restrict women's freedom of expression, leading to limitations on their voice, representation, and participation in decision-making processes.

Topic: 259- Gender differences-3: -

Gender inequity has serious and long lasting consequences for women and other marginalized gender. Exposure to violence, objectification, discrimination, and socioeconomic inequality can lead to anxiety, depression, and low self-esteem. Gender inequity often translates into economic disadvantages for women. Women may face wage gaps, limited access to higher-paying jobs and leadership positions, occupational segregation, and discrimination in the workplace. These factors contribute to lower earnings, financial insecurity, and a higher likelihood of poverty among women. In societies where gender inequity persists, women may face barriers in accessing quality education. Discrimination, cultural norms, early marriage, and gender-based violence can hinder girls' education, leading to limited educational opportunities and lower literacy rates for women. This can further perpetuate social and economic disadvantages for women.

Topic: 260- Gender differences-4: -

According to biological theories, gender differences in psychology and behavior are caused by congenital factors, such as sex hormones, chromosomes, genes and heredity. Masculine people tend to communicate affection by including their friends in activities and exchanging favors. Masculine people tend to communicate with each other shoulder-to-shoulder (e.g., watching sports on television). Masculine individuals may prefer or feel more comfortable engaging in activities that

involve shared interests or experiences. In contrast, feminine people are more likely to communicate weakness and vulnerability.

Topic: 261- Academic and cognitive differences in gender-1: -

Academic and cognitive differences in gender refer to observed variations in academic performance and cognitive abilities between individuals of different genders. These differences are often discussed in the context of educational settings and research studies.

Academic differences may refer to variations in academic achievement, interests, and choices of subjects or fields of study. Studies have shown that, on average, there are differences in academic performance between genders in certain subjects or domains. For example, in some regions, males tend to have higher representation and perform better in STEM (science, technology, engineering, and mathematics) fields, while females may excel in language and social sciences. It is important to note that these are broad generalizations and do not apply to every individual.

Cognitive differences, on the other hand, pertain to variations in cognitive abilities and skills between genders. Research has explored differences in areas such as spatial reasoning, verbal skills, mathematical abilities, and problem-solving approaches. However, it is crucial to emphasize that while some studies have identified average differences at the group level, there is significant overlap between individuals of different genders, and individual differences within each gender group are often larger than the average differences between them.

Generally, females show advantages in verbal fluency, perceptual speed, accuracy and fine motor skills, while males outperform females in spatial, working memory and mathematical abilities.

Topic: 262- Academic and cognitive differences in gender-2: -

Males have slightly higher verbal and reasoning abilities than females and a more pronounced superiority on spatial abilities. If the three abilities are combined to form general intelligence, the mean for males is 4 IQ points higher than the mean for females. However, it's important to note that these differences, even if statistically significant, do not imply that all males are superior to all females in these abilities, nor do they determine the intelligence or capabilities of any given individual.

Research on cognitive abilities and gender differences is a complex and ongoing field, and findings can vary across studies and populations. It is also important to consider that the observed average differences do not imply causation or determine the factors that contribute to these variations.

Additionally, individual variation within each gender group is generally larger than the average differences between them. Many factors, including cultural influences, societal expectations, educational opportunities, and individual experiences, contribute to an individual's cognitive development and performance. It is essential to approach these findings with caution and avoid making broad generalizations or assumptions about individuals based solely on their gender. Recognizing and respecting the diversity and uniqueness of each person is crucial when discussing cognitive abilities and intelligence.

Topic: 263- Academic and cognitive differences in gender-3: -

There is a positive relationship between an individual's cognition (cognitive abilities, skills, or processes) and their academic performance. In other words, individuals who have stronger cognitive abilities tend to perform better academically. Research has consistently shown that cognitive abilities play a significant role in academic achievement. Various aspects of cognition, such as working memory, attention, information processing speed, executive functions, and problem-solving skills, are involved in learning, understanding, and applying knowledge in an academic setting.

For example, strong verbal reasoning skills can aid in understanding and analyzing written texts, while spatial abilities may contribute to success in subjects such as geometry or engineering. Additionally, cognitive skills like critical thinking, logical reasoning, and memory can enhance overall academic performance across different disciplines.

Lecture: 45

(Topics: 264-269)

Topic: 264- Gilligan's Theory of Moral Development-1: -

Topic: 265- Gilligan's Theory of Moral Development-2: -

Topic: 266- Gilligan's Theory of Moral Development-3: -

Topic: 267- Differences in cultural expectations and styles: -

Topic: 268- Bilingualism: language differences in the classroom-1: -

Topic: 269-Bilingualism: language differences in the classroom-2: -

Topic: 264- Gilligan's Theory of Moral Development-1: -

Gilligan's theory of moral development, proposed by psychologist Carol Gilligan, offers an alternative perspective to Lawrence Kohlberg's theory of moral development. Gilligan's theory focuses on the moral development of girls and women and suggests that there are gender differences in how individuals approach ethical decision-making and moral reasoning.

Gilligan argued that Kohlberg's theory, which primarily focused on the moral development of boys and men, was biased and did not adequately account for the experiences and perspectives of females. According to Gilligan, women tend to emphasize care and relationships in their moral decision-making, whereas men tend to prioritize justice and individual rights.

Gilligan's theory highlights the importance of empathy, compassion, and relational ethics in moral decision-making. It emphasizes that care and concern for others should be recognized as significant moral values, alongside principles of justice and rights.

Critics of Gilligan's theory argue that it reinforces gender stereotypes and fails to account for the diversity of moral orientations within both genders. They also suggest that care-based ethics are not

exclusive to females and that individuals of any gender can value care and relationships in their moral decision-making.

Overall, Gilligan's theory of moral development challenges traditional perspectives and provides insights into the moral development of girls and women, emphasizing the importance of care and relationships in ethical decision-making. However, it is important to consider a range of perspectives and individual differences in moral development.

Topic: 265- Gilligan's Theory of Moral Development-2: -

Gilligan's work on moral development outlines how a woman's morality is influenced by relationships and how women form their moral and ethical foundation based on how their decisions will affect others. Gilligan's research challenged the dominant theories of moral development at the time, which primarily focused on the moral reasoning of males and did not adequately account for the experiences and perspectives of females.

Gilligan argued that women's moral development is shaped by a different set of considerations compared to men. She highlighted the importance of relationships and care for others in women's moral decision-making processes. According to Gilligan, women tend to prioritize the impact of their decisions on others and consider the well-being and needs of those involved.

This emphasis on relationships and interconnectedness influences how women form their moral and ethical foundations. Rather than primarily focusing on principles of justice and individual rights, as proposed by Lawrence Kohlberg's theory of moral development, Gilligan proposed that women's moral orientation emphasizes care, empathy, and maintaining relationships.

In Gilligan's view, women's moral reasoning is grounded in an ethic of care, which takes into account the interconnectedness of individuals and the importance of nurturing and maintaining relationships. Women's moral decisions are often guided by a concern for the well-being of others, avoiding harm, and promoting care and support.

Gilligan's work highlighted the significance of relational ethics and challenged the notion that justice-oriented perspectives alone capture the complexity of moral development. She argued that recognizing and valuing the ethics of care can contribute to a more comprehensive understanding of moral reasoning and promote a more inclusive and compassionate approach to ethics.

It is important to note that Gilligan's theory does not suggest that men are incapable of caring or women are incapable of justice-oriented reasoning. Rather, she aimed to shed light on the unique considerations and perspectives that can influence women's moral development and decision-making processes.

Topic: 266- Gilligan's Theory of Moral Development-3: -

Gilligan proposed three stages of moral development in her theory:

Pre-conventional Stage: Similar to Kohlberg's theory, this stage reflects a self-centered approach to morality. However, Gilligan emphasized that girls, in particular, often prioritize their own needs and self-preservation over others due to societal expectations and gender socialization.

Conventional Stage: In this stage, individuals start to recognize the importance of social relationships and care for others. Moral decisions are influenced by an understanding of

responsibility and the impact of actions on others. Gilligan suggested that women tend to focus on maintaining relationships and avoiding harm.

Post-conventional Stage: This stage reflects a higher level of moral reasoning that goes beyond personal relationships and care. Individuals in this stage consider broader social and ethical principles and strive for a balance between caring for others and addressing justice concerns. Gilligan argued that both men and women can reach this stage of moral development.

Topic: 267- Differences in cultural expectations and styles: -

A culture is the system of attitudes, beliefs and behaviors that constitute the distinctive way of life. For example, Western cultures tend to prioritize individualism, emphasizing personal independence, self-expression, and individual rights. Asian cultures, on the other hand, often prioritize collectivism, focusing on group harmony, family values, and societal obligations. Asian cultures generally place a strong emphasis on hierarchy and respect for authority figures, such as parents, teachers, and elders. Western cultures often have a more egalitarian outlook, promoting equality and challenging authority when necessary.

Human expectations can vary significantly across different cultures due to the influence of various factors, including history, religion, values, social norms, and geographical context. Each culture has its own set of norms that define what is considered acceptable or appropriate behavior in various situations. These norms shape people's expectations of how individuals should act, interact, communicate, and fulfill their roles within society. Cultures often have distinct expectations regarding gender roles, family structures, and social hierarchies. These expectations determine the roles and responsibilities individuals are expected to fulfill and can influence their behavior and aspirations.

Eye contact varies by culture

Eye contact refers to the act of looking directly into someone's eyes during communication. The significance and interpretation of eye contact can vary widely across cultures. Here are a few examples:

In many Western cultures, direct eye contact is generally considered a sign of attentiveness, sincerity, and confidence. It is often encouraged during conversations as a way to establish trust and engagement.

In some Asian cultures, prolonged or direct eye contact may be seen as a sign of disrespect, aggression, or immodesty. Maintaining lower levels of eye contact or looking down can be perceived as a sign of respect, politeness, and humility.

Social distance varies by culture

Social distance refers to the physical proximity or distance individuals maintain while interacting with others. The acceptable social distance can differ among cultures due to various factors, such as cultural norms, personal space preferences, and comfort levels. Here are a few examples:

In many Western cultures, individuals tend to prefer a larger personal space bubble during interactions. This means they feel more comfortable with more physical distance between themselves and others, especially with individuals they are not familiar with.

In some Asian cultures, the concept of personal space is different. Individuals may be more accustomed to closer physical proximity during conversations and may feel comfortable with a smaller personal space bubble.

Topic: 268- Bilingualism: language differences in the classroom-1: -

Bilingualism refers to the ability of an individual to use and understand two languages proficiently. Bilingual individuals have the skills to communicate effectively in both languages, often switching between them depending on the context, the people they are interacting with, or their personal preferences. At one extreme are students who speak both English and another language fluently; at the other extreme are those who speak only limited versions of both languages. In between are students who speak their home (or heritage) language much better than English, as well as others who have partially lost their heritage language in the process of learning English. Language differences in the classroom can have an impact on bilingual students and their educational experiences. Bilingual students who are still developing proficiency in the language of instruction may face challenges in understanding and expressing themselves effectively. Limited language skills can impede their comprehension of academic content, participation in classroom discussions, and overall academic progress. Bilingual students may face difficulties in reading and writing in the language of instruction. They might struggle with decoding words, understanding sentence structures, or organizing their thoughts coherently in writing. These challenges can affect their ability to comprehend texts, complete assignments, and demonstrate their knowledge effectively.

Topic: 269-Bilingualism: language differences in the classroom-2: -

Bilingual, meaning that they understand and use two languages difficulty focusing the student who speaks both languages fluently has a definite cognitive advantage. Bilingual individuals have been shown to demonstrate better attention control and selective focus. They are accustomed to filtering out irrelevant language information and paying attention to relevant linguistic cues. This ability to manage competing language systems can extend to other cognitive tasks, leading to enhanced attention skills. Bilingualism promotes metalinguistic awareness, which is the ability to think about and analyze language as a system. Bilingual individuals have a deeper understanding of language structure, grammar, and vocabulary due to their exposure to multiple linguistic systems. This heightened metalinguistic awareness can transfer to improved literacy skills and language processing abilities.

English is considered the lingua franca of the world, spoken by millions of people across different countries and cultures. Proficiency in English allows students to communicate and connect with people from diverse backgrounds, opening up opportunities for international collaboration, travel, and employment. English is widely used as a medium of instruction in higher education institutions, particularly in fields like science, technology, business, and humanities. Proficiency in English enables students to access a broader range of educational resources, participate in academic discussions, and pursue higher education opportunities abroad.