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CONTENTS:

SLM Development Team:

HoD, Department of Education, G.U.

Programme Coordinator, MA in Education, GUCDOE

Dr. Manoja Kr. Nayak, Assistant Professor, GUCDOE

Course Coordination:

Dr. Debahari Talukdar	Director, GUCDOE
Prof. Polee Saikia	Programme Coordinator, GUCDOE
	Professor, Dept. of Education, G.U.
Dr. Manoja Kr. Nayak	Assistant Professor, GUCDOE

Contributors:

Dr. Nabanita Sarma (Block I)
Assistant Professor, Dept. of Education, Biswanath College

Dr. Manoja Kr. Nayak (Block II)
Assistant Professor of Education, GUCDOE (Block V)

Dr. Mallika Kalita (Block III)
Associate Professor, Dept. of Education, KBVSASU, Nalbari (Block IV)

Content Editing:

Dr. Purabi Baishya	Associate Professor,
	Deptt. of Education, Gauhati University

Cover Page Design & Type Setting:

Bhaskar Jyoti Goswami	GUCDOE
Nishanta Das	GUCDOE

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BLOCK I:
THE PROCESS OF LEARNING

Unit 1 : Meaning, Definitions and Nature of Learning

Unit 2 : Factors Affecting Learning

Unit 3 : Theories of Learning

Unit 4 : Educational Implications of Theories of Learning

UNIT 1: MEANING AND NATURE OF LEARNING

Unit Structure:

1.1 Introduction

1.2 Objectives

1.3 Meaning of Learning

1.4 Definition of Learning

1.5 Nature of Learning

1.6 Summing Up

1.7 Sample Questions

1.8 References/Suggested Readings

1.1 Introduction:

The learning process of human life starts from the birth and continues till death. Every animal in this world is born with certain number of innate disposition which determine its initial response. These initial responses enable it to adapt itself to simple environment which is around it. But man lives in a complex environment and so these innate guides of behavior are inadequate for his adaptation to the environment. So, he need to collect experiences or to learn to make his responses more suitable to the environment. So, educational psychology deals with the learning process which is an important aspect of teaching and learning. With this regard teachers and parents have to provide suitable atmosphere for children to learn. The main objective of school as institution is to bring certain desirable changes in behavior of children through the processsning. As soon as the children come into contact with the environment and he starts reacting and ultimately the foundation of learning laid down.

1.2 Objectives:

After going through this unit, you will be able to:

- Explain about the meaning and nature of learning.
- Mention different definitions of learning.

1.3 Meaning of Learning:

Learning is an active process which depends on the activity of the individual himself. Man is influenced much by his environment. He is flexible in his attitude, interest, appreciation, skills and abilities which are primarily the product of learning. What a man learns is determined by his constitution and on the other hand by the demands which environment makes upon him. Learning means to bring changes in the behavior of the organism. It is nothing but capacity of adaptation of changing situation of life. Leaning situations are most common and natural in life and every one of us learn for that situation. On the other hand,the process or natural growth or maturation, is a process of development with which the individual himself has little to do. Moreover, learning is a purposeful and goal oriented activity. It is a product of environment which is continuous and universal process to attain experiences. Experiences, direct or indirect, play a dominant role in moulding and shapingthe behavior of individual from the beginning. Thus, in brief, learning is change in human disposition and capability which can be retained and which is not dependent only on the process of development.

In the words of Kimble, "Learning is a relatively permanent change in behavioral potentiality that occurs as a result of reinforced practice".

This definition reveals the following facts which includes:

a) Learning is a process and not a product.
b) Learning depends on practice and experience. Its makes learning perfect and ultimately bring changes in nature.
c) Learning prepares an individual for any adjustment and adaptation that may be necessary.
d) Learning does not include changes in behaviour on account of maturation ,fatigue, illness or drugs etc.

Thus, in the words of Gates defines learning as, "the modification of behavior through experience and training".

1.4 Definition of Learning:

Different Psychologists define learning in different ways. Following definitions give a clear picture about the concept of learning.

- C. V. Good in Dictionary of Education, explained the term 'learning' as a "Change in response or behaviour (such as innovation, elimination or modification of responses, involving some degree of performance) caused partly or wholly by experience, such experience being in the main conscious, but sometimes including significant unconscious components, as is common in motor learning or in reaction to unrecognized or subliminal stimuli; includes behaviour changes in emotional sphere, but more commonly refers to the acquisition of symbolic knowledge or motor skills, does not include psychological changes, such as fatigue or temporary sensory resistance or non-functioning after continued stimulations."

- Hilgard defined learning as, "a change in a subject's behavior to a given situation brought about his repeated experiences in that situation, provided that the behavior change cannot be explained on the basis of native response tendencies, maturation, or temporary states of the subject. (e.g. fatigue, drugs, etc.)

- Woodworth define learning as, "Any activity can be called learning so far as it develops the individual (in any respect, good or bad) and makes him alter behavior and experiences different from what they would otherwise have been".

Thus, from the above definitions it can be stated that learning should enable us to make best use of things around us. It depends on practice and experience which makes learning perfect and ultimately bring changes in behaviour.

1.5 Nature of Learning:

Leaning is not limited to school only; it begins long before and may continue long after school days. It may be stated that learning should enable us to make the best use of the things around us. So the acquisition of abilities which enable us to adjust ourselves in an effective manner in an environment and to control it successfully is said to be the aims of learning.

The concept of learning will be more clear with the following discussion about nature of learning:

- **Leaning Implies Change:** Learning includes all those factors which bring change about our behavior. Different factors affect differently to change our behaviour. So, before learning our behaviour is different than the behaviour after learning.

- **Learning Implies Development**: Every individual wants comfortable adjustment on his environment. There is a constant interaction between the individual and his environment. The individual tries to adjust himself physically, mentally, socially, intellectually, etc after learning individual know the correct way to adjust him in his environment.

- **Leaning is a Lifelong Process**: our life starts at the moment of birth and continues till death. In every moment of our life we face enormous problems. Learning helps us to solve these problems and also helps to modify our behaviour.

- **Learning is Activity**: in the teaching-learning process, the activity of the learner counts more than the activity of the teacher. This is the main principle of learning and it has been recommended by all modern educationists. Infact, all progressive methods of education such as Delton plan, Project method, the Montessori Method, Basic education etc. are based on this.

- **Acquisition of New Knowledge in terms of Learning**: Child learns different things in everyday life and also learns by solving different problems. When the child comes into contact with his environment for the first time he learns many things and modifies his behaviour. But as the time goes on, he modifies his behaviour more effectively by acquiring new knowledge on the basis of previous knowledge.

- **Learning should have a Definite Purpose:** Everyone has a definite purpose. Without any purpose our life is meaningless. So, a well definite purpose moves the child in right direction and enables him to have proper and successful learning, the permanence of learning depends on the strength of purpose.

- **Learning has a Wider Scope:** The learning process includes not only the knowledge of 3R's and other text booked knowledge. It also includes the day-to-day experiences. Life presents enormous opportunities to learn and learning categories are so much that it is difficult to limit into one.

- **Learning and Intelligence:** Intelligence and learning process is closely related and without of one other is impossible. Intelligence has great significance in learning process. When the

child begins to learn he need a minimum level of intelligence. Because an intelligent child has basic mental drive to do things.

- **Learning and Maturation:**Maturation is a natural process of physical development whereas learning is a process which takes place as a result of some stimuli from without. These stimuli result in some activity and experiences.

1.6 Summing Up:
- Learning process in the sense of active learning or the modification of the behavior-pattern is not a simple affair, it requires a hard training and proper control of factors that condition learning.
- Maturation is a developmental process within which a person, from time to time, manifest different traits, the 'blue-prints' of which have been carried in his cells from time of his conception. It is closely linked with results of learning and with the process of development.

1.7 Sample Questions
1. Define learning with suitable definition.
2. What are the main characteristics of learning? Explain any five.
3. Explain about the nature of learning.

1.8 References/Suggested Readings:
1. Aggarwala, J.C.(2015) Essentials of Educational Psychology. Vikas Publishing House Pvt. Ltd., New Delhi.
2 Chauhan, S.S (1978) Advanced Educational Psychology, Vikas Publishing House Pvt. Ltd.
3 Chaube, S.P.(2020) Educational Psychology. LaxmiNarain Agarwal. New Delhi.
4 Kuppyswamy, B (1991) Advanced Educational Psychology. Sterling Publishers House, New Delhi.
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6 Mathur, S.S. (2001) Educational Psychology. Vinod PustakMandir, Agra-2.
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UNIT 2: FACTORS AFFECTING LEARNING

Unit Structure:

2.1 Introduction

2.2 Objectives

2.3 Factors Affecting Learning

    2.3.1 Personal Factors

    2.3.2 Environmental Factors

2.4 Importance of Learning for Teachers

2.5 Summing Up

2.6 Sample Questions

2.7 References/Suggested Readings

2.1 Introduction:

Psychology is defined as a science which aims to give better understanding and control of the behaviour of the organism as a whole. It is educational psychology which provides information about many factors that affect teaching –learning and offers useful and tested ideas for improving instruction. The process of learning is influenced by a variety of factors. A thorough knowledge of these factors will prove very helpful for teachers and parents in understanding and guiding their children's learning. So, knowledge of educational psychology is very essential for teacher to know about physical, mental personality differences and lastly how they adopt to the environment.

2.2 Objectives:

- Explain about different factors affecting learning
- Describe about the importance of learning for teacher.

2.3 Factors Affecting Learning:

       Learning is a very complex process and is affected by a various factors. These factors may relate to learner, learning situation, learning process and learning resources and the like.

Following are some of the important factors of learning:

➢ Physical and mental health of the learner.

➢ Socio-economic and cultural background of the learner.

➢ Previous knowledge of the learner.

➢ Goals and philosophies of life.

➢ Availability of material and non material resources for effective implementation of the process of learning.

➢ The effectiveness and suitability of methods of education, the principles of correlation of learning, use of sensory channels, practice and feedback, self learning etc.

➢ Socio-cultural and economic background as well as social norms, values, beliefs, attitudes etc of the society.

2.3.1 Personal Factors

Factors Influencing learning are classifiable in various ways. Some of the following are:

i)   **Age of the learner:**
    Age is the most important factor in the process of learning. A Child has many ages. The child is only physically developed with age but not developed in social skills required for that age, emotional balance and intellectual operations of that age.

i)   **Maturation:**
    Academic learning involves not the maturation of structure but a wide variety of structural maturities that may occur at different rates. There may be a period of maximum susceptibility to training or learning which if not 'taken at its flood' will then result in waning of the child's potential for learning.

ii) **Motivation:**
    The most effective learning takes place when there is a maximum of mental activity which attained through strong motivation. According to the Mc. Dougall, Learning requires adequate motivation. So, emphasis should be given on importance of goals in all behaviour.

iii) **Abilities**:
    Learning process includes both acquisition and retention of learning materials. Acquisition is the process of learning something and retention is the sustainability of the learning process. Higher abilities includes ability to apply learning principles or process to a new situation and retained it for longer period. So, learning abilities is one of the important element of learning process.

iv) **Aptitude:**

Aptitude of the future potentiality persisting among individual. It includes special skills knowledge and interest. So, educators use aptitude test to determine the ability of learner to perform a particular tasks.

v) **Emotional Condition:**

Proper emotional condition is very important dimension for proper or fruitful learning. If people are emotionally positive and socially secure their learning would be very active. Studies revealed that a high percentage of seriously retarded readers exhibit emotional problems. So, Emotional and Social climate in home and school play a crucial role for proper learning of children.

vi) **Needs:**

Needs stands for a force in the brain region that organizes perception, further experiencing and following action. Learnings' needs are the enthusing motivators for their behaviour. If their needs are not satisfied they express behavioural problems and achievement.

vii) **Interest:**

Interest is created by acquisition of new skills by encouragement and by satisfying experience. Teachers own interest and enthusiasm are contagious which inspire and sustain interest in pupil and gradually as he grows, acquires and displays new interests according to level of maturation.

2.3.2 Environmental Factors:

Natural Factors: Atmosphere condition is very important factor for proper learning process. Great educationists like Pestalozzi, Montessori, Rousseau, etc always favours natural learning of child with natural development. Only in natural environment child can grow fully with balance development of inner potentialities.

2.4 Importance of Learning for Teachers:

To make the teaching effective, knowledge of learning process is very essential for teachers. The main objective of school is to bring certain desirable changes in behaviour through learning process. The learning helps the teacher in different ways for successful teaching. The importance of learning in teaching-learning situations is worth mentioning:

❖ Learning helps teacher to know the operations and approaches to develop better teaching strategies. The teacher having the knowledge of learning can operate the learning process well and choose the correct approach of learning.

- ❖ Teacher having the knowledge of learning can understand the individual differences in learning among learners. Those teachers can adopt their teaching according to their requirements by using different teaching methods.
- ❖ The most important contribution of learning is the concept of motivation. The teacher may know the needs and motives of children at different age level. He can organize those activities which creates interest and motivation in children.
- ❖ Teacher having the knowledge of learning can know the process of remembering and forgetting and can utilize efficient method of minimizing the percentage of forgetting. Those teachers can assist the students to apply various techniques for better remembering.
- ❖ They can help the students to transfer of skills and information acquired in the classroom to the life situation. They can assimilate the knowledge of school with the practical life problems.
- ❖ Teachers having the knowledge of learning can diagnose special difficulties of children and help them individually to overcome those problems. Modern psychology of learning lays more emphasis on social psychology of learning.
- ❖ The teachers who have knowledge of psychology of learning can create learning situation well. These teachers can improve the social climate for learning by providing conducive environment in the classroom.
- ❖ Teachers having the knowledge of learning psychology can know the fundamental principles of learning and by using these principles he can make his teaching learning process effective. Those teachers can more effectively guide the classroom teaching learning.

Thus, learning psychology plays a significant role which can assist teacher in the process of learning.

2.5 Summing Up:

Learning is a lifelong continuous process which refers any change when they occur as a result of experience. It is a process which leads to certain modification in behaviour through experience and training so that individual can easily adjust in new situation. So, we can say that learning is acquiring new knowledge, behaviour, skills, values, understanding and may involve synthesizing different types and information.

2.6 Sample Questions:

1. How did Gates define learning?
2. Mention some important factors of learning.
3. Describe about how knowledge of educational psychology help teacher in teaching learning process.

2.7 References/Suggested Readings:

1. Aggarwala, J.C.(2015) Essentials of Educational Psychology. Vikas Publishing House Pvt. Ltd., New Delhi.
2. Chauhan, S.S (1978) Advanced Educational Psychology, Vikas Publishing House Pvt. Ltd.
3. Chaube, S.P.(2020) Educational Psychology. LaxmiNarain Agarwal. New Delhi.
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UNIT 3: THEORIES OF LEARNING

Unit Structure:

3.1 Introduction

3.2 Objectives

3.3 Theories of Learning

3.4 Summing Up

3.5 Sample Questions

3.6 References/Suggested Readings

3.1 Introduction:

Learning theories are frameworks that explain how people acquire and retain knowledge. They provide a systematic way to understand how individuals process and respond to new information. Different theories focus on different aspects of the learning process , such as cognitive, behavioural and constructivists approach.

3.2 Objectives:

After going through this unit—
- Describe different theories of learning and their educational implications.
- Learn and clearly differentiate different laws of learning.

3.3 Theories of Learning:

A theory of learning cannot be defined to satisfy all interested persons. Theories of learning are organized set of principles that aims to explain how individuals acquire, retain and

recall knowledge in different situations. It attempts to explain the mechanism of behaviour involved in learning process. The principles, theories and laws of the theories can be used to guide us in selecting instructional tools, techniques and strategies to promote our learning. The most acceptable definition of a theory is that of Melvin H Marx (1970), who defined "atheory is a provisional explanatory proposition or set of propositions, concerning some natural phenomena and consisting of symbolic representation of:

a) The observed relationships among independent and dependent variables.

b) The mechanisms or structures presumed to underlie such relationships or

c) Inferred relationships and underlying mechanisms intended to account for observed data in the absence of any direct empirical manifestation of the relationships.

The entire theories of learning can be divided into two broad categories namely Stimulus Response theories and cognitive field theories. The Stimulus Response theories are again sub-divided into two categories according to pleasure and displeasure of the organism. The underlying theories are under—

A-(1) S-R Theories without Reinforcement

- Conditioning by Pavlov.
- Watson's learning theory.
- Guthrie's learning theory.

A-(2) S-R Theories with Reinforcement

- Thorndike'sConnectionism theory.
- Hull's theory.
- Skinner's Operant Conditioning theory.

Under Category B- Cognitive Field Theories

- Gestalt theory of learning.
- Lewin's theory of learning.
- Tolman's Sign Gestalt theory.

As a result of enquiry and investigation a number of theories have come into existence. These theories have been classified into two major heads (Schools of Psychology)

- Behaviourist theories
- Cognitive theories

Behaviourist theories belonged to the school of behaviorism where learning is interpreted in terms of connection and associations between stimulus and response. These theories of learning were developed in the early 1900s and became dominant in early 20th Century. The essence of behaviourism is that learning is a process of a change in behaviour of the organism due to the acquisition, reinforcement and application of associations between environmental stimuli and observable response. Under this category Guthrie's continuity theory, Throndike's trial and error learning, Hull's drive reproduction theory, Classical and Operant conditioning etc.

Under Cognitive groups many theories have been included which pay more importance on Gestalt and Cognitive Psychology. In place of purely mechanical approach these theories emphasize the rule of purpose, insight, understanding, memory, reasoning and other cognitive factors. Under this category insightful learning, Lewin's field theory and Tolman's Sign Gestalt theory and Tolman's Sign Gestalt theory may be included.

3.3.1 Connectionism Theory

It is one of the most primitive and simple theory of learning. Edward Lee Throndike (1874-1949) was the main propounder of the theory of connectionism. He was American psychologists who conducted stimulus response theory experiment with the help of animals. He was the first to study the subject of learning systematically using standardized procedures and apparatus.

Thorndike introduced the term reward or reinforcement for learning. Traditionally, there has been less emphasis in reinforcement theories regarding control of stimuli instead more emphasis is laid on control of responses. The responses which are followed by satisfaction or pleasure are reinforced and become more probable in future. This theory is based on the concept that bonds or connections are formed between stimulus and responses. It is related to conditioning in that it utilizes the concept of association but differs in that more stress is placed on the role of the organism. This theory emphasizes that the behaviour begins with reflexes and natural responses and new behaviours result from the acquisition of new bonds through experience. This connection depends on a number of variables which operate in the environment and the organism. These include frequency, recency, intensity, vividness, mode of the subject, resulting in satisfactions, similarities of situations and capacity of the subject. So this theory is

also known as bond theory. On the basis of his experiments he formulated three major laws of learning and supplementary principles.

On the basis of different experiments Thorndike explain that learning involves through trial and error connection. He also named this principle as trial and error learning. It iscommitted error before it hit upon the correct move. Moreover, he again explains that learning is the result of formation of connection in the nervous system. According to him, learning is gradual, not insightful. It depends upon the number of trials fulfilled by the learner. His experiments proved that learning is the direct activity not mediated by ideas. It is a simple semi mechanical phenomenon, a process of establishing simple connection between stimulus and response.

3.3.2 Theory of Conditioning

Thorndike's Experiment: Puzzle Box Experiment:

The experiment of Thorndike was widely known as puzzle box experiment where he has used a puzzle box developed by some certain mechanisms. The experimental set up was very simple. In this experiment a hungry cat was confined in a puzzle box and outside the box a dish of food was kept. In order to come outside from the box the cat had to pull a string of the box. As he saw the cat made several random movements of jumping and running to get out of the box. At last the cat came out and got the food. Thorndike immediately put the cat in the puzzle box for next trials. The cat again made random movements to come out of the box and finally succeeded. Over a series of trials the cat became increasingly efficient in getting out of the box. The number of errors reduced slowly and at last it came into zero. Thorndike concluded that the learning of cat in the puzzle box in terms of formation of connection, when connection is satisfactory the learning is more easier. Thus, learning according to this theory is fixation of correct responses and avoiding the incorrect responses through trial and error. The time taken to repeat the rewarding response decreases with successive trials.

Thus, experiments and major theoretical principles which form the basis of Throndike's theory of learning are summarized in the following:

- ❖ Learning involves trial and error or selection and connection.
- ❖ Learning is the result of the formation of connections.
- ❖ Learning is incremental, not insightful. Learning according to Thorndike, needs several attempts and trials and then occurs in small systematic steps rather than in huge jumps.

❖ Learning is direct, not mediated by ideas. Thorndike maintained that learning is simple , semi-mechanical phenomenon, a process of establishing a simple connection between sensory stimuli and the appropriate responses and does not involve mediation by any ideas, reasoning or thinking.

Thorndike's Laws of learning:

Thorndike on the basis of different experiments propounded three major laws of learning and five supplementary principles. These laws are originally the outgrowth of experiments in the field of animal psychology.

- **Law of Effect**: According to Thorndike, this law states that "whenpleasant or satisfying consequences follow or attend a response, the latter tends to be repeated. When painful or annoying consequences attend a response, it tend to be eliminated" .The law of effect maintains that when modifiable connection between stimulus and response has been made it strengthen the learning if the result is satisfactory and it made weakened if it leads to annoyance. All pleasant experiences have a lasting influence and are remembered for a long time. On the other hand, unpleasant ones are soon forgotten. Therefore, pleasure and displeasure decides the degree of effectiveness in learning.

The law of effect has been criticized by different psychologists. He replied that by satisfying state of affairs is meant one which the animal does nothing to avoid whereas annoying state of affairs the animal does nothing to preserve. So, in the year 1932 he revised his law and said that while pleasant situation resulted in strengthening the connection an unpleasant situation decrease the strength of connection.

- **Law of Readiness**: which states that "when a bond is ready to act, the act gives satisfaction and not to give annoyance. When a bond which is not ready to act is made to act , annoyance is caused." Readiness according to Thorndike is the preparation for action which is very essential for learning. If a child ready to learn than he learns more quickly, effectively and with greater satisfaction. so, the right moments concerning the learning situation and the learners state of mind should be recognized and maximum use should be made of knowledge by the teacher. Besides these readiness is also dependent upon both maturation and experience of the learner. Thus, this law indicates the learner's state to participate in the learning process.

- **Law of Exercise**: which states that "other things being equal, exercise strengthens and lack of exercise weakens the bond between stimulus and response." Here, other thing implies specially the consequences of response recognized by the law of effect. Thus, Exercise or practice makes learning perfect.

This law is further divided into law of use and law of disuse. Law of use states the other things being equal, the more frequently a modifiable connection is made, the connection will be stronger whereas when modifiable connection is not made over a period of time the strength of connection is weakened. Therefore, the law of exercise as a whole emphasizes the need for repetition.

Thorndike after 1930 revised this law of exercise because both the law of use and disuse don't work as effectively as propounded by him earlier. Mechanical use or disuse does not necessarily lead to effective learning or total forgetting.

Besides these three major laws of learning Thorndike formulated five supplementary principles as--------

a) Principle of multiple response
b) Principle of mental set.
c) Principle of partial activity.
d) Principle of analogy or assimilation.
e) Principle of associative shifting.

Thus, the main findings of this theory can be summarized as that learning is the result of S-R connections formed in the brain and reinforced by some reward which acts as a motivator for repeating the same action. The transfer of learning is explained in terms of identical elements in two situations and forgetting is caused by lack of practice.

3.3.3 Classical Conditioning

Classical Conditioning was developed by Russian Psychologist's by Ivan Pavlov. He was basically interested in studying the gastric secretion in dogs. While studying the functioning of digestive system he noticed that the dog has shown natural response with the food steps of caretakers. Pavlov began to study this phenomenon which is called conditioning. As a result he

developed the theory of classical conditioning which played a significant role in the process of learning. The salivating process, well before the food was put into mouth of the dog is called psychic secretion. This secretion was basically known as classical conditioning.

Conditioning means modification of natural response. Natural stimulus results in natural response. But according to condition response natural stimulus is substituted by an artificial stimulus and by this way new connection between artificial stimulus and natural response is created. According to Pavlov, Classical Conditioning is a process in which a natural stimulus, by pairing with a natural stimulus, acquires all characteristics of natural stimulus. Classical Conditioning is sometimes called substitution learning because we substitute a natural stimulus in place of natural stimulus. Modern Psychologists have interpreted classical conditioning as signal learning. It is also known as learning by habit formation. It is based on the principle of association and substitution.

Classical Conditioning Experiment:

The basic phenomenon of classical conditioning is very simple. Pavlov restricted his experimental studies to the process of secretion of saliva in dog. Pavlov kept the dog and brings it to the experimental table which was fitted with certain mechanically controlled devices. The dog was made comfortable and distraction was excluded as far as possible. The observer himself remains hidden from the dog but was able view the experiment by set of mirrors. Arrangement was made to give food to the dog through an automatic mechanism. He also arranged a bell to ring every time food was presented to the dog. When the food was put before the dog the bell was rung, there was automatic secretion of saliva from the mouth of the dog. The activity of presenting the food accompanied with the ringing of bell was repeated for several times and amount of saliva secreted was measured.

After several trials the dog was given no food but the bell was rung and the amount of saliva secretion in this situation was measured. It was found that in the absence of food, the ringing of bell caused the dog to secret saliva. The mechanism of Classical Conditioning is comprised of the following:

a) Unconditioned Stimulus (UCS): Food which is invariably causes a natural response.

b) Unconditioned Response (UCR): Salivation which results when unconditioned stimulus is presented.

c) Conditioned Stimulus (CS): The sound of the bell which does not bring about salivation or desired response when presented alone and will only produce salivation when it is conditioned with the food.

d) Condition Response (CS): Salivation process with the sound of the bell is particular behaviour that an organism learns to produce when the Condition Stimulus is presented.

Model of Classical Conditioning is given below:

1. UCS…………………………………....... UCR
   (Food)   (Saliva)
2. CS+UCS……………………………………UCR
   (Sound of the Bell+Food)(Saliva)
3. CS………………………………………………CR
   (Sound of the bell)   (Saliva)

Thus, Classical Conditioning can be defined as "a process in which a neutral stimulus, by pairing with a natural stimulus, acquires all the characteristics of natural stimulus."In this experiment of classical conditioning several important principles are associated with it. Some of them are very much important.

❖ Intensity of Stimulus: there is positive correlation between intensity of stimulus and magnitude of response. If the stimulus is more intense then more rapidly the conditioning will proceed.

❖ Extinction: if the conditioned stimulus is presented alone number of times then conditioned response will disappear.

❖ Spontaneous Recovery: After extinction the behaviour often reappears but reduced intensity.

❖ Stimulus Generalization: Generalization is a process where conditioned response to a stimulus is generalized to similar category of stimuli.

❖ Stimulus Discrimination: it is opposite of stimulus generalization which states that the learner learns to react differently to different stimuli.

Therefore, it can be concluded that though classical conditioning has no direct classroom implications but teachers can use this theory in regular teaching learning situation differently.

Teacher can create an atmosphere with positive reinforcement which helps students in easy development of proper habit and positive attitude for different aspects of life. Conditioning was accepted as theoretical framework and practical technique of solving a variety of applied problems. The most important contribution is the language of learning and conditioning, e.g.- teaching of alphabets to small children. Besides these, this theory is also helpful in deconditioning emotional disturbances by applying different psycho therapy. Thus, much of our behaviour in the shape of interests, attitudes, habits, sense of application or criticism, moods and temperaments, is fashioned through conditioning. The process of conditioning not only helps us in learning what is desirable but also helps in eliminating, avoiding or unlearning of undesirable habits, unhealthy attitudes, superstitions, fear and phobias through avoiding.

3.3.4 Operant Conditioning:

History of operant conditioning begins with Prof. B.F. Skinner 1904 in Harvard University. He is known for his researches collecting facts and description of purely empirical relations. He is specifically interested in controlling those responses that seem to occur with no direct stimulation such responses are emitted rather than elicited by obvious environmental stimulation. Skinner critically studies the Thorndike's view of laws of learning. He concluded that behaviour is shaped and maintained by its consequences. It is operated by the organism. So, this type of behaviour is known as operant behaviour.

B.F. Skinner coined the term 'Operant Conditioning', where "Operant" implies that behaviour operates upon the environment to generate its own consequences. An Operant is a set of acts which conditions an organism in doing something. He was of the view that in practical situation in life we cannot always wait for things to happen in the environment. Individual may often manipulate the things in the environment with his own initiatives. Operant conditioning is also known as instrumental conditioning. It implies that learning occurs through reward and punishments given for a particular behaviour.

Skinner's pigeon experiment:

Skinner experimented with a pigeon and shaped its behaviour. He taught the pigeon to walk in the figure of eight. He watched the activity of the pigeon and gave a small amount grain for simply turning in the right direction. In the earlier stages the pigeon got his reward for simply turning its head in the right direction. He was rewarded again for taking a step in the right

direction and again for marking the correct turn. Finally, it learned to move in a complete figure of eight.

In operant conditioning some important steps are followed which are as -

- It starts with the responses as they occur naturally and not at random.
- If they do not occur naturally, efforts should be made for shaping them into exercise. Shaping means an organism is conditioned to performed difficult activities through rewards at the right occasion in the process of conditioning.
- Once a desirable response occurs it again reinforced through suitable reward.
- In due course the desirable responses get conditioned by constantly reinforcing it.

Thus, reinforcement is a key element in Skinner's S-R theory. A reinforce is anything that strengthens the desired response.

According to this theory, learning and environment should be properly planned for learner. We should plan for a systematic manner of conditioning for the learning of child. Reward will play the role of motivator whereas it suggests not to use punishment. We should analyze the problems of child and avoid inappropriateness. Therefore, this theory has contributed to the proper growth and development of programmed learning and the use of teaching mechanisms.

Operations in Operant Conditioning:

Several operations are involved in the process of operant conditioning. Following are important operations:

a) **Shaping:** It is the most important mechanism which refers to the judicious use of selective reinforcement to bring certain desirable changes in the behaviour of the organism. The most striving and significant contribution of Skinner is the development of a technique to shape the complex behaviour by systematically reinforcing closer approximation to the desired behaviour. Eg..suppose we wish to shape behaviour of an untrained pigeon in the Skinner box to learn a particular instrumental response, say pecking a particular disk.By reinforcing the different responses pigeon come closer and closer to the disk and we would reinforce the behaviour. It has been reported by Skinner that by using this technique, a hungry pigeon can usually be made to peak at the disk within a period of about three minutes.

There are three important psychological principles which are involved in the process of successful shaping. They are as follows:

- ➢ Generalization
- ➢ Habit competition
- ➢ Each segment in the chain must be linked to the other.

b) **Extinction:** It consists simply of withholding the reinforcer when the appropriate response occurs. Withholding of reinforcer means extinction of previously established relationship.

c) **Spontaneous Recovery**: It refers to the fact that if an organism is removed from the situation for a while after extinction and then returned and again presented with S1, his performance will be better than would be predicted from his performance at end of preceding extinction. Spontaneous recovery occurs in Operant conditioning situation and is affected by all those variables which operate in Pavlovian conditioning.

d) **The Concept of reinforcement**: The concept of reinforcement is central in operant conditioning. A reinforcer is any event which changes subsequent behaviour when it follows in time. B.F. Skinner used reinforcement as a procedure for controlling behaviour, not a hypothetical device that reduces stimulus response connection. Reinforcer are events that raise the rate of responding.

Implications of Operant Conditiong:

The theory of operant conditioning has revolutionized the field of training or learning by following implications:

- ➢ The principle of operant condition may be successfully applied in behaviour modification.
- ➢ The development of human personality can be successfully manipulated through operant conditioning.
- ➢ Operant conditioning emphasizes the importance of schedules in the process of reinforcement of behaviour. It trying to impart a particular behaviour, therefore, great care should be taken for the proper planning of schedules of reinforcement.
- ➢ The theory of operant conditioning does not attribute motivation to internal processes within the organism. It takes for granted the consequence of a

behaviour or response as a source of motivation to further occurrence of that behaviour.

➢ This theory advocated the avoidance of punishment for unlearning the undeseriable behaviour and for shaping the deserptable behaviour.

➢ The most effective application of operant conditioning is that it has contributed a lot to the development of teaching machines and programmed learning.

3.3.5 Gestaltor Insightful Theory of Learning:

Learning by insight is the contribution of German Psychologists who were studying the nature of perception. The views propagated by behaviourists in the form of an association faced great difficulty in explaining the learning process or behaviour involving higher cognitive ability. Dissatisfied with the approaches of behaviourists, the cognitive psychologists tried to see learning as a more deliberate and conscious effort rather than the formation of habits. Cognitive psychologists say that in a learning process the learner does not receive responses but definitely interacts what he receives. The new explanation of behaviour developed by three German Psychologists namely Wolf Gang Kohler, Kurt Koffka, William Werthimer is known as Gestalt psychology.

Gestalt is a German term which means "configuration" or "organized whole". According to Gestaltists learning cannot be understood by the study of its constituents but by the study of it as a totality. Gestalt is a protest against associationism with its analytical method. Here, mental facts are to be studied as concrete wholes; it holds that gestalts or organized wholes have qualities not belonging to parts and the parts derive their qualities from the wholes.

Gestalts believed that it is primarily concerned with the nature of perception. According to it an individual perceives a thing as a whole while behaviourists define perception as to make with taking of a photograph. They believed that sensation comes prior to meaning and consider these two as separate. But Gestalt psychologists don't separate the sensation of an object from its meaning. They are of the opinion that unless a person sees some meaning in an object he will pay little attention to it. Moreover, Gestaltists said perception always involves a problem of organization. They tried to interpret learning as purposive, exploratory and creative enterprise instead trial and error. Thus the main factor of Gestalt theory of learning is the development of insight.

Insightful theory of learning depends on the following factors:

- Experience: past experience of the learner helps in the insight of the problem.
- Intelligence: the general intelligence of the learner is important in grasping of the solution of the problem.
- Initial Effort: A repeated effort through trial and error opens the way of insight learning.
- Generalization: Learning experiences gained in one situation helps the learner to react insightful in similar situation.

Kohler and Koffka conducted many experiments on chimpanzees and brought out a book "Mentality of Apes" in 1925 in which they showed that learning was not the result of trial and error but of insight and ability to see relationship between various factors involved in a situation. Kohler conducted many experiments with his chimpanzee "Sultan" to describe the nature of "insight". These experiments illustrate the theory of learning by insight.

Kohler conducted a series of experiments on Chimpanzees. The four classic experiments of this theory are---

1. **Experiment:** In the first experiment Kohler confined a Chimpanzee, named "Sultan" in a cage. There was a stick in the cage and outside the cage some bananas were put. In the first instance on seeing the bananas chimpanzee made jumping and showed restless and tried his best to reach the bananas, but he could not reach without the help of the stick. All of a sudden the chimpanzee received the stick and established relationship between stick and bananas. He got the bananas with the help of the stick.

2. **Experiment:** In the second experiment two stick were used which could be fitted in each other with some mechanisms. The chimpanzee could only get the bananas with the help of both the stick fitted in each other. First he tried to get the bananas by one stick but failed. All of a sudden he succeeded in fitting the both stick and could get the bananas.

3. **Experiment:** In this experiment the experimental condition was slightly changed. The bananas were hanged from the ceiling of the cage and a box was put to get the bananas. At first, the chimpanzee attempts to get the bananas without the box but could not reach them. He suddenly established relationship between box and the bananas. He climbed on the box and got the bananas. He climbed on the box and gets the bananas.

4. **Experiment:** Slight change was also introduced in this method. Two boxes were kept instead of one. The Chimpanzee could only get the bananas with the help both boxes. First he used

single box to get the bananas but failed. After sometime he put one box on another and climbed on it and got the bananas.

These experiments demonstrate the rule of intelligence and cognitive abilities in higher learning such as problem solving.On the basis of their experimental studies, certain laws are developed by them which are mentioned below:

- Figure-Ground: Everything we perceive stands against a background. There is a close relationship between figure and ground. So, we always try to see the situation on the basis of a background and try to find out cause.
- Principle of Pragnanz: This principle states that our perceptual patterns always tend to be simple, regular and complete with no loose ends. The gaps are closed by perceiver.
- Law of Transposition: This principle states that Gestalts are isomorphic to stimulus pattern so they may undergo extensive changes without losing their identity.
- Law of Similarity: It suggests that similar words, numbers, and objects tend to associate in a group and easy to recall than dissimilar.
- Law of Proximity: It states that objects which are close in space and time tend to form a gestalt.

3.3.6 Field Theory:

Kurt Lewin, like Pavlov, Skinner, Gestaltian Psychologists conducted experiments on the study of behaviour of children. It is, however, different from this respect that it gives more importance to behaviour in place of experience and makes use of motivations. He utilized an elaborate experimental set up with a view to control child's total environment during the course of the investigation getting detailed information. He emphasized the study of behaviour as a function of total physical and social situation.

Learning is behaviour, locomotion from one region of life space to another when a person moves from one region to another. Learning and insight can always be viewed as a change in the cognitive structure of the situation. It frequently includes differentiating and restructuring in the sense of separating certain regions which have been connected and connecting regions which have been separated.

Perception is the main issue in Lewin's theory of learning. He has classified learning into the following four categories----

a) Learning as a chance in cognitive structure.

b) Learning is a change in motivation, i.e., in valences and values.

c) Learning is acquisition of skills.

d) Learning is a change in group belonging.

According to Lewin, level of aspiration is an important factor in the learning process. Level of aspiration depends on the potentialities of the individual and on the influences of the group to which he belongs. It has been further advocated by him that too high or low level of aspiration discourages learning. Lewin's theory is also called as field theory because 'field' means total psychological world in which a person lives at a certain time. It includes matters and events of past, present and future, concrete and abstract, actual and imaginary—all interpreted as simultaneous aspects of a situation.

In this way, we find that Lewin considers the psychological and traditional Gestalt learning as a point of that general problem which is about "how we experience the world as we experience it." Hence, learning takes place by bringing changes in the experiences or structure of life space.

3.4 Summing Up:

> For proper explanation about learning different psychologists have developed different theories of learning. These theories may be broadly classified under two major heads:

> S-R theories or behaviourist theories and Cognitive theories.

> Connectionism is one of the most simple theory of learning which was propagated by American Psychologists Edward Lee Thorndike. According to him, learning is the formation of bond between stimulus and response which depends on a number of variables which operate the environment and the organism. On the basis of his experiment he formulated three major laws of learning and supplementary principles.

> Conditioning means modification of natural stimulus. Natural stimulus results natural response but according to condition response natural stimulus is substituted by an artificial stimulus and by this way new connection between artificial stimulus and natural response is created. Under conditioning theory Classical conditioning was developed by Russian Psychologist Ivan Pavlov. According to Pavlov, Classical Conditioning is a process a neutral stimulus acquires all characteristics of natural stimulus. When both the artificial and natural stimulus are bought together for several times the organism becomes

conditioned to respond to this situation. As a result, a natural stimulus can be substituted by an artificial stimulus is able to evoke this situation.

➢ Operant conditioning is another approach to the study of associative learning which was developed by B.F. Skinner. It refers to increasing or decreasing the probability of response or behaviour in a particular stimulus environment by following the response with reinforcement or a punishment. He called his procedure operant conditioning which can be defined as any learning which is based on response contingent reinforcement and does not involve choice among experimentally defined alternatives.

➢ Gestalt psychology is a protest against associationism with its analytical method. Here, mental facts are to be studied as concrete wholes. It holds that gestalts or organized wholes have qualities not belonging to parts and the parts derive their qualities from the wholes. Learning by insight means sudden grasping of the solution, a flash of understanding, without any process of trial and error.

➢ Lewin's theory regarded learning as a relativistic process by which a learner develops new insight or changes old ones. According to the theory, learning is not a mechanistic process of connecting stimuli and responses within a biological organism.

➢ Constructivist learning envisages learning in the context of real life situations and problems. It suggests a curriculum that integrates learning in workplace. Classroom activities are designed in such a way that guide students to work collaboratively, decide sequence and pace of work and actively engage in problem solving sand critical thinking.

3.5 Questions and Exercise:

Short –Answer Questions:

1. Which theory suggested trial and error method of learning?
2. What are different laws of learning suggested by connectionism theory?
3. Explain Pavlov's Classical Conditioning theory of learning by giving famous experiment on dog.
4. Mention few educational implications of operant conditioning theory.
5. Explain few factors on which learning by insight depends.
6. Explain briefly about theory of insightful learning.
7. Write briefly about the main concept of Kurt Lewin's field theory.
8. Mention some of the important characteristics of constructivism as a theory of learning.

Long Answer Questions:

1. Summarize the contribution of Kurt Lewin's field theory in the field of education.
2. Describe about the theory of constructivism.

3.6 References/Suggested Readings:

1. Aggarwala, J.C.(2015) Essentials of Educational Psychology. Vikas Publishing House Pvt. Ltd., New Delhi.
2. Chauhan, S.S (1978) Advanced Educational Psychology, Vikas Publishing House Pvt. Ltd.
3. Chaube, S.P.(2020) Educational Psychology. Laxmi Narain Agarwal. New Delhi.
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6. Mathur, S.S. (2001) Educational Psychology. Vinod Pustak Mandir, Agra-2.
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UNIT 4: EDUCATIONAL IMPLICATIONS OF THEORIES OF LEARNING

Unit Structure:

4.1 Introduction

4.2 Objectives

4.3 Educational Implication of Connectionism Theory

4.4 Educational Implication of Theory of Conditioning

4.5 Educational Implication of Classical Conditioning

4.6 Educational Implication of Operant Conditioning

4.7 Educational Implication of Gestalt Theory of Learning

4.8 Educational Implication of Field Theory

4.9 Summing Up

4.10   Sample Questions

4.11   References/Suggested Readings

4.1 Introduction:

Learning theories main categories or philosophical frameworks under which learning theories fall: behaviorism, cognitive and constructive. Behaviorism focus only on the objectively observable aspects of learning. Cognitive theories look beyond behaviour to explain brain based learning. And constructivism views learning as a process in which the learner actively constructs new ideas.

4.2 Objectives:
- Describe about educational implications of theory of constructivism.
- Explain about educational implications of theory of conditioning.
- Describe the educational implications of different field theories like Gestalt theory of learning and Lewin's Field theory.
- Describe modern educational theory constructivism and its educational implications.

4.3 Educational Implication of Connectionism Theory

On the basis of different experiments Thorndike explain that learning involves through trial and error connection. He also named this principle as trial and error learning. It iscommitted error before it hit upon the correct move. Moreover, he again explains that learning is the result

of formation of connection in the nervous system. According to him, learning is gradual, not insightful. It depends upon the number of trials fulfilled by the learner. His experiments proved that learning is the direct activity not mediated by ideas. It is a simple semi mechanical phenomenon, a process of establishing simple connection between stimulus and response.

Many psychologists, specially the behaviourists consider that connectionism theory gives a more or less adequate explanation of many phases of learning process. This theory takes into account the fundamental concept of connectionism. The concept of this theory is that learning is the linking of a response to a stimulus. The human organisms as well as many other organisms, have an innate fund of responses, tendencies or reactions which are activated when appropriate stimuli are presented to them.

4.4 Educational Implication of Theory of Conditioning

After several trials the dog was given no food but the bell was rung and the amount of saliva secretion in this situation was measured. It was found that in the absence of food, the ringing of bell caused the dog to secret saliva. The mechanism of Classical Conditioning is comprised of the following:

a) Unconditioned Stimulus (UCS): Food which is invariably causes a natural response.
b) Unconditioned Response (UCR): Salivation which results when unconditioned stimulus is presented.
c) Conditioned Stimulus (CS): The sound of the bell which does not bring about salivation or desired response when presented alone and will only produce salivation when it is conditioned with the food.
d) Condition Response (CS): Salivation process with the sound of the bell is particular behaviour that an organism learns to produce when the Condition Stimulus is presented.

Model of Classical Conditioning is given below:
1. UCS………………………………….......... UCR
   (Food)   (Saliva)
2. CS+UCS…………………………………….UCR
   (Sound of the Bell+Food)(Saliva)
3. CS……………………………………………CR
   (Sound of the bell)   (Saliva)

Thus, Classical Conditioning can be defined as "a process in which a neutral stimulus, by pairing with a natural stimulus, acquires all the characteristics of natural stimulus."In this experiment of classical conditioning several important principles are associated with it. Some of them are very much important.

❖ Intensity of Stimulus: there is positive correlation between intensity of stimulus and magnitude of response. If the stimulus is more intense then more rapidly the conditioning will proceed.

❖ Extinction: if the conditioned stimulus is presented alone number of times then conditioned response will disappear.

❖ Spontaneous Recovery: After extinction the behaviour often reappears but reduced intensity.

❖ Stimulus Generalization: Generalization is a process where conditioned response to a stimulus is generalized to similar category of stimuli.

❖ Stimulus Discrimination: it is opposite of stimulus generalization which states that the learner learns to react differently to different stimuli.

Therefore, it can be concluded that though classical conditioning has no direct classroom implications but teachers can use this theory in regular teaching learning situation differently. Teacher can create an atmosphere with positive reinforcement which helps students in easy development of proper habit and positive attitude for different aspects of life. Conditioning was accepted as theoretical framework and practical technique of solving a variety of applied problems. The most important contribution is the language of learning and conditioning, e.g.- teaching of alphabets to small children. Besides these, this theory is also helpful in deconditioning emotional disturbances by applying different psycho therapy. Thus, much of our behaviour in the shape of interests, attitudes, habits, sense of application or criticism, moods and temperaments, is fashioned through conditioning. The process of conditioning not only helps us in learning what is desirable but also helps in eliminating, avoiding or unlearning of undesirable habits, unhealthy attitudes, superstitions, fear and phobias through avoiding.

4.5 Educational Implication of Classical Conditioning:
  ➢ Principles of classical conditioning can be used for developing good habits among children like cleanliness and punctuality etc.

➢ It can be used for reconditioning fear, Anxiety etc.

➢ This theory emphasizes the importance of reinforcement and development positive attitude among children**.**

4.6 Educational Implications of Operant Conditioning:

The theory of operant conditioning has revolutionized the field of training or learning by following implications:

➢ The principle of operant condition may be successfully applied in behaviour modification.

➢ The development of human personality can be successfully manipulated through operant conditioning.

➢ Operant conditioning emphasizes the importance of schedules in the process of reinforcement of behaviour. It trying to impart a particular behaviour, therefore, great care should be taken for the proper planning of schedules of reinforcement.

➢ The theory of operant conditioning does not attribute motivation to internal processes within the organism. It takes for granted the consequence of a behaviour or response as a source of motivation to further occurrence of that behaviour.

➢ This theory advocated the avoidance of punishment for unlearning the undesirable behaviour and for shaping the desirable behaviour.

The most effective application of operant conditioning is that it has contributed a lot to the development of teaching machines and programmed learning.

4.7 Educational Implications of Gestalt or Insightful Theory of Learning:

1) Subject matter should be presented as a whole to facilitate insightful learning.

2) Teacher should try to motivate student by giving opportunities for using his mental abilities.

3) Attempts should be made to encourage thinking, reasoning, and understanding instead of emphasizing mechanical memorization of facts.

4) Insightful theory requires organization of perceptual learning material in form of a gestalt. The significant contribution of this theory is the organization of curriculum, scheme of studies, work plan and procedure of planning the scheme of learning.

4.8 Educational Implications of Field Theory:

The classroom implications include the importance of seeing the total situation at the beginning. In the teaching of a subject the question that will be answered during the study of the subject should be raised. The teacher should preview the activities involved and the problem to be encountered. Moreover, looking to the classroom from the field theorist's point of view, the pupil, the teacher, the school and the peer group are all parts of the total situation. Thus, it can be said that learning is characterized by changed perception, improved reactions, differentiation of stimuli and response, integration of stimuli and response and achievement of understanding of insight. Factors which condition learning are the state of the organism, the appropriateness of stimulation and the existence of goals.

Educational Implications of Constructivism Theory:

Constructivism theory makes the teaching learning process as learner centered where students are regarded as active participant and they are encouraged and guided by teacher to construct their knowledge on the basis of their abilities, qualities, interests and prior experiences. Some important implications of this theory are worth mentioning:

❖ Constructivism promotes social and communication skills by creating a classroom environment that emphasizes collaboration and exchange of ideas by sharing group projects.

❖ This theory provides modern innovative tools such as problem solving and inquiry based learning activities with which students formulate and test their ideas, draw inferences and strengthen their knowledge.

❖ Constructivism is a process in which students are help to develop their own goals and assessment, create new understandings and control learning through learning by doing principle which help teacher to pose problems that are or will be relevant to the students.

4.9 Summing Up:

1. There are mainly two types of theories of learning----S-R Theories and Cognitive field theories.
2. E.L Throndike is the father of Connectionism theory.
3. Laws of learning was propounded by E. L. Thorndike.
4. There are some supplementary principles propagated by Throndike in the theory of connectionism. These are---principle of multiple response, principle of mental set,

principle of partial activity, principle of analogy or assimilation, principle of associative shifting.

5. Russian Psychologists Ivan Pavlov advocated theory of classical conditioning.

6. The four important elements of conditioning process are natural stimulus, natural response, artificial stimulus and artificial response.

7. Classical conditioning theory helps in development of habit formation and language development of child.

8. Operant conditioning implies that learning occurs through reward and punishments given for a particular 6ehavior.

9. The Gestalt came from German language.

10. The group of German Psychologists who advocated Insightful theory of learning are Wolf Gang Kohler, Kurt Koffka and Max Werthimer.

11. The important laws associated with Gestalt theory of learning are-Figure-Ground, Principle of Pragnanz, Law of Transposition, Law of Similarity, Law of Proximity.

12. Regarding classroom implications of Kurt Lewin's field theory it can be said that in the teaching of a subject the question that will be answered during the study of the subject should be raised. The teacher should preview the activities involved and the problem to be encountered. Moreover, it can be said that learning is characterized by changed perception, improved reactions, differentiation of stimuli and response, integration of stimuli and response and achievement of understanding of insight.

13. Constructivism refers to theories of knowledge and learning. The central premise of constructivism is that a learner is believed to construct, through reflection, a personal understanding of relevant structures of meaning derived from his or her action in the world.

14. Constructivism theory makes the teaching learning process as learner centered where students are regarded as active participant and they are encouraged and guided by teacher to construct their knowledge on the basis of their abilities, qualities, interests and prior experiences.

4.10 Questions and Exercise:

1. Mention some of the important characteristics of constructivism as a theory of learning.
2. Describe about different theories of learning and explain one of them with educational implications.
3. Summarize the contribution of Kurt Lewin's field theory in the field of education.
4. Describe about the theory of constructivism by giving practical examples of it in classroom situation.

4.11 References/Suggested Readings:

1. Aggarwala, J.C.(2015) Essentials of Educational Psychology. Vikas Publishing House Pvt. Ltd., New Delhi.

2. Chauhan, S.S (1978) Advanced Educational Psychology, Vikas Publishing House Pvt. Ltd.
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BLOCK II:
MOTIVATION IN LEARNING

Unit 1 : Meaning, Definitions and Functions of Motivation

Unit 2 : Intrinsic and Extrinsic Motivation

Unit 3 : Theories of Motivation

Unit 4 : Strategies of Enhance Motivation in the Class

Block – II

Unit - 1

MOTIVATION IN LEARNING

Contents:

1.0 Introduction

Every individual wants to develop. The key to his/her development is learning. Learning helps him or her to performing desirable acts and move towards development. Learning is a requisite for all activities especially the solving of problems. It is a continuous and life long process. It is not confined to the class-room alone but is an important aspect of an individual's survival in the environment. All educational institutions, parents and teachers aim to facilitate learning and development of their children by arranging appropriate conditions for them. Successful learning leads to successful development.

1.1 Objectives

After going through this unit, you will be able to:

- understand the meaning of motivation and learning,
- analyse various definitions of motivation,
- Understand the characteristics and functions of motivation.

1.2 Motivation and Learning

Every action performed by the individual is purpose oriented. This purpose motivates action. If someone who is properly motivated initiates action then that action gets desirable results. Without motivation he or she is likely to fail. Learning in children is closely correlated with their motivation. If children are properly motivated then their quantum of learning is increased. Therefore it is necessary to understand the meaning, types and theories of motivation and the other associated aspects. This chapter tells you about all of these things.

1.2.1 Meaning of Motivation:

The term motive is derived from the Latin word 'Motum' means to move, to set in motion or to prompt to action. A motive stimulates a person to behave or act in a certain way. Motivation represents the causes for an individual's actions, desires, and needs. A motive is what prompts a person to act in a certain way or at least develop an inclination for specific behaviour:- for example, when someone eats food to satisfy hunger, or when a student does his/ her work in school because he/she wants a good grade. Motivation can also be defined as one's direction to behaviour or what causes a person to want to repeat behaviour and vice versa. Motivation is the process that initiates, guides, and maintains goal-oriented behaviours. Motivation is what causes us to act, whether it is getting a glass of water to reduce thirst or reading a book to gain knowledge. It involves the biological, emotional, social, and cognitive forces that activate behaviour. In everyday usage, the term motivation is frequently used to describe why a person does something.

Motivation is a power that energizes, regulates and controls the activities of an individual. Motivation is the psychological stimulus that directs people to act in a certain way to achieve their goals.

1.2.2 Meaning of Learning:

Every individual wants to develop. The key of his development is learning. Learning helps him to realize the needs by performing desirable acts and leads him to move towards his development. Learning is a requisite for all activities and problem solving behavior. It is continuous and life long process. It is not confined to class-room rather it goes beyond the class-room. Learning is an important function of an individual which becomes a cause of his survival in the environment. All educational institutions,

parents, teachers aim to facilitate the learning of their children by arranging different helpful conditions and help them to develop. Successful learning leads to successful development.

Learning occupies an important place in school education programme. In fact, schools are set up for making children learn. All the efforts of the teachers and parents are devoted to the learning of the children. Learning is an enrichment of experience. In learning there is an interaction of the environment with the organism. Without learning all efforts of children as well as of teachers have no meaning. It is generally observed that in the determination of child's behaviour there is no process more important than learning. It is also observed that motivation plays a significant role in learning process. Without motivation learning cannot take place. Learning and motivation both are closely related to each other. However, we shall discuss some important definitions of motivation.

1.3 Definitions of Motivation:

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

G.M.Blair and Others (1947) "Motivation is a process in which the learner's internal energies or needs are directed towards various goals objects in his environments "

J.P.Guilford (1950) "A motive is any particular internal factor of condition that tends to initiate and sustain activity"

A.H.Maslow (1954) "The self actualisation tendency is growth motivation. Self-actualisation is the development 0f personality which frees the person from the deficiency problems of growth. Motivation is the constant, never ending, fluctuating and complex and that it is an almost universal characteristics of particularly every organism's state of affairs."

W.A. Kelly (1955) "Motivation is the central factor in the effective management of the process of learning. Some type of motivation must be present in all learning"

L.D.Crow and A.Crow (1962) "Motivation is considered with the arousal of the interest in learning and to that extent is basic to learning"

K.Lovell (1964) " Motivation in school learning involves arousing, persisting, sustaining and directing desirable behaviour"

H.W.Bernard (1965) "Motivation is the stimulation of actions towards a particular objective where previously there was little or no attraction to that goal"

T.W.Atkinson (1966) "The term motivation refers to the arousal of tendency to act to produce one or more effects"

F.G.McDonald (1972) " Motivation is an energy change within the person characterised by effective arousal and anticipatory goal relations"

C.V.Good (1973) " Motivation is the process arousing, sustaining and regulating activity"

D.O.Hebb (1975) " The term motivation refers (i)to existence of an organised phase sequence (ii) to its direction and content (iii) to its persistence in given direction or stability of content"

Arun Monoppa and Mirza S.saiyadain (1985) " Motivation is propensity or the level of desire of an individual to behave in a certain manner at a certain time and in a certain situation"

Baron (1995) states, "Motivation refers to the internal process that can't be directly observed but that activates guides and maintains overt behaviour."

Wade and Tavris (1998): "Motivation is an inferred process within a person or animal, which causes that organism to move towards a goal or away from an unpleasant situation."

Woolfolk (2004) points out, "Motivation is an internal state that arouses, directs, and maintains behaviour."

Feldman (2004) says, "Motivation as the factors that direct and energise the behaviour of humans and other organisms."

Fernald and Fernald (2005) refers to motivation as "Inner influence on behaviour as represented by psychological conditions, interests, attitudes, and aspirations."

On the basis of the above definitions, we understand that motivation is the *inner state of arousal, which energizes the individual to act on the goal attainment.* Needs, drives and motives are the activating forces which are responsible for the motivation of the individual.

STOP TO CONSIDER:

The term motive is derived from the Latin word 'movere' means to move, to set in motion or to prompt to action. A motive stimulates a man to behave or act in certain way. Motivation represents the causes for an individual's actions, desires, and needs. A motive is what prompts a person to act in a certain way or at least develop an inclination for specific behaviour.

CHECK YOUR PROGRESS:

1. Define Motivation? (within 50 words)

   ....
   ....
   ....
   ....
   ....

1.4 Characteristics of Motivation:

Motivation is a theoretical construct used to explain behavior. It represents the reasons for people's actions, desires, and needs. Motivation can also be defined as one's direction to behavior or what causes a person to want to repeat a behavior and vice versa. Motivation has following special characteristics.

- **Continuous Process:** Motivation is a continuous or never ending process. It is so because human needs, desires, wants or wishes are endless. All of them can never be satisfied simultaneously. Satisfaction of one need, gives size to another need. Therefore, motivation process goes on forever.
- **System-oriented:** Motivation is system-oriented. It is the system that contains three main factors:
  - Factors operating within an individual i.e. his needs, aspirations, wants, wishes, values etc.
  - Factors operating within the organization such as organization structure, technology, physical facilities, work environment etc.
  - Factors operating in external environment such as custom, norms of society, culture etc. Motivation is the result of interaction among these factors.
- **Need-satisfying Process:** Motivation is a need satisfying process. An unsatisfied need creates tension that stimulates drives within an individual. These drives generate a search behavior to find particular goals that will satisfy the need and reduce tension.
- **Dynamic Process:** Motivation is a dynamic and complex process. It is so because it is related to human behavior which is never static but dynamic. It keeps on changing continuously.
- **Motivation is Internal Feeling:** Motivation is internal feeling of an individual. It points out the energizing forces within an individual that direct or influence him to behave in a particular way.

- **A Psychological Concept:** The concept of motivation is mainly psychological. It relates to those forces operating within the individual employee who impels him to act or not to act in certain ways.
- **Energizing Force:** Motivation is the process that energizes or encourages individuals to put in effort to achieve organizational goals and to satisfy their needs.
- **Willingness to Exert Effort:** Motivation is the willingness of an individual to exert effort in the pursuit of organizational goals and to satisfy some individual needs.

CHECK YOUR PROGRESS:

2. Write any 5 characteristics of motivation?

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1.5 Functions of Motivation:

The following are some of the functions of motivation—

- ➢ Motivation is arousing interest in learning.
- ➢ Motivation is sustaining interest in learning.
- ➢ Motivation is directing behavior.
- ➢ Motivation initiates and energies activity in learning.
- ➢ Motivation leads to self-actualization in learning.
- ➢ Motivation arouses, sustains and directs behavior.
- ➢ Motivation stimulates learning activity.
- ➢ Motivation is the arousal of tendency to act and produce results.
- ➢ Motivation is directed to a selective goal.
- ➢ Motivation provides the energy and accelerates the behavior of the learner.
- ➢ Motivation releases the tension and helps in satisfying the needs of the learner.
- ➢ Motivation is the internal condition or factor of learning.

CHECK YOUR PROGRESS:

3. The term motivation is originated from a Latin word_____.
4. Motivation is a Psychological Concept. (True/False)
5. Motivation is not an internal feeling. (True/False)
6. Motivation is not sustaining interest in learning. (True/False)
7. Motivation is directed to a selective goal. (True/False)

1.6 Summing Up:

Every human behaviour is motivated. Without motive a living being cannot move even a step ahead. In other words, behaviour of men is controlled by some motives. The teacher, in order to make his teaching effective should have a good knowledge of motivation and its effects on learning. Science of motivation teaches a teacher how to motivate a student to learn. It also helps him to study individual difference among students. Learning is a behaviour which is aroused by a wish of fulfilling a necessity. In the same way learning is also a goal oriented activity. Several factors contributing for its success are – environment, mental set-up of the learner and skills of the teacher. Teaching is fulfilled in discipline environment, backed by a strong motivation of the students. It is difficult to teach without any knowledge about motivation. It arouses interest of the learner and makes them attentive and interested.

However, both motivation and learning are closely and positively related. Higher will be the motivation, better will be the result of learning.

1.7 Question and Exercises:

1. What do you mean by Motivation? How is it related to learning?
2. Discuss the role and functions of Motivation in learning?

1.8 References and Suggested Readings:

Bhatia, B.D. and Raghunath Safaya.1992. *Educational Psychology and Guidance*, Delhi: Dhanpath Rai and Sons.

Kuppuswami, B. 1991. *Advanced Educational Psychology*, New Delhi: Sterling Publishers.

Mangal,S.K. 2007. *Essentials of Educational Psychology*, New Delhi: Prentice Hall of India.

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Block – II

Unit – 2

INTRINSIC AND EXTRINSIC MOTIVATION

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Contents:

2.0 Introduction:

Motivation is a driving force which makes an individual to do some action. Children are moved to action, in other words, motivated, when they are in a state of tension or disequilibrium. When tension is removed and the equilibrium restored, a state of quiescence ensues. Tensions arise when an individual sees or imagines an object or state which he does not possesses but he desires. In other words, he feels the need to know what he does not know. The teacher has to provide for and inculcate such motives as would channelize the student's activities in desirable lines. The teacher has to manipulate the environment in such a way that the student feels that if he does not pay attention, he will be losing something which has got value for him. However in this unit we shall discuss about different types of motivation.

2.1 Objectives:

After going through this unit, you will be able to:

➢ Differentiate between intrinsic and extrinsic motivation

2.2 Types of Motivation

Motivation is of the following two types:-

2.2.1　Intrinsic Motivation:

Intrinsic motivation is the self-desire aroused in the subject itself. It is spontaneous and automatic interest expressed by an individual in a certain task. It is driven by an interest or enjoyment in the task itself, and exists within the individual rather than relying on external pressures or a desire for reward. Intrinsic motivation is a natural motivational tendency and is a vital element in case of some one's cognitive, social, and physical development. Students who are intrinsically motivated are more likely to engage in a task willingly to improve their skills, which will increase their capabilities. Long lasting and long sustaining intrinsic motivation gives better results.

Intrinsic motivation does not depend on external goals. The student is satisfied with the internal reinforces or factors. The student performs an activity because he enjoys it; he is interested in it. The student is motivated not to tell lies because he is honest.

Innate tendencies and capacities– children's curiosity, need to explore and experience need a range of activity in classroom. An inspiring teacher strikes a balance between encouraging spontaneous curiosities, the sparking of interests and the kindling of enthusiasm and the necessity for providing focus and mastery of skills and insights. This is possible when teachers begin to spend more time listing to the pupils and less time taking. Listing provides clues to individual interests.

Participation leads to participation- active participation leads to initiate, originality in approach and to creativeness. It provides an outlet for gregarious instinct. In a democratic set up it provides status and voice to children. It enriches comprehension. That clarity motivates participation in turn.

Learning by Doing – when students have to perform something not mentally but in actual work they strive for more clarity of theoretical teaching. Hence, vigorous application and experimentation, expected of students, motivate them.

Attention and interest- Appropriate variety of teaching methods and procedures and questioning demand students attention. If teaching is suitable to the mental development, aptitudes, capacities and attitudes of the pupils, it creates interests and captures best attention.

Emotional factors- Motivation in any situation is related to emotional factors. They affect behaviour in a propound manner. Great feats of courage and valour were achieved by heroes because strong emotions are aroused in them. The teacher has to arrange the effective conditions for efficient learning. But a too highly affective or feeling state tends to decline students performance. If pupils are concerned with their performance they would exhibit some level of anxiety though not high.

Pragmatic outlook- Motivation is effected by the usefulness of information which again depends upon the meaningfulness of information. Human being develops numerous values in life and each individual sets certain broad goals in life which

influence his learning. How far the learnt material is useful for the student as a necessary knowledge, or skill is the serious question especially when we are aiming at lifelong learning or education for life.

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CHECK YOUR PROGRESS:

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1. Write about intrinsic motivation? (within 50 words)

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2.2.2 Extrinsic Motivation:

Extrinsic motivation is the opposite of intrinsic motivation. Extrinsic motivation comes from influences outside of the individual. Usually extrinsic motivation is used to attain outcomes that a person wouldn't get from intrinsic motivation. Common extrinsic motivations are rewards (for example money or grade) for showing the desired behavior, and the threat of punishment for misbehaviour. Competition is an extrinsic motivator because it encourages the performer to win and to beat others, not simply to enjoy the intrinsic rewards of the activity. A cheering crowd and the desire to win a trophy are also extrinsic incentives.

Extrinsic motivation depends on needs that are satisfied by external reinforces. Extrinsic motivation may be necessary to get the student initiate an action necessary to get the learning process started. If the student looks forward for a good grade or degree or a well paid job he is said to be extrinsically motivated.

Active and enthusiastic teacher- enthusiasm is contagious. Enthusiasm of the teacher is directly observed by students which motivate them to be active learners. His gestures, movement, body language and speech patterns add to the verbal expression of the subject matter.

*Teaching learning materials (A.V.Aids***) -** use of teaching learning material brings clarity in place of ambiguity and makes a lesion interesting. It also results in change or breaking of monotony. Map, charts, graphs, models, pictures and use of T.V, radio, film strips, if used properly, give no place for ambiguity.

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CHECK YOUR PROGRESS:

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2. Write about extrinsic motivation? (within 50 words)

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STOP TO CONSIDER:

Motivation is of the following types:

(i) Intrinsic Motivation, and

(ii) Extrinsic Motivation.

2.3 Summing Up:

There are two types of motivation – intrinsic and extrinsic. Motivation plays an important role in teaching learning process. The purpose of motivation is to direct the energy of an alert group into constructive channels and keep it there. It means inculcating and stimulating interest in a particular topic at the moment. It involves the understanding and use of natural urges of the child and also assisting him in acquiring new desirable motives. The motivation of pupils is one of the most important factors in teaching. Without motivation there can be no learning. However, a teacher must understand both types of motivations to make his teaching learning process more effective and interesting.

2.4 Questions and Exercise

1. What is meant by intrinsic motivation?
2. What is meant by extrinsic motivation?
3. Differentiate between intrinsic and extrinsic motivation.

2.5 Suggested Readings and References

Bhatia, B.D. and Raghunath Safaya.1992. *Educational Psychology and Guidance*, Delhi: Dhanpath Rai and Sons.

Kuppuswami, B. 1991. *Advanced Educational Psychology*, New Delhi: Sterling Publishers.

Mangal,S.K. 2007. *Essentials of Educational Psychology*, New Delhi: Prentice Hall of India.

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Skinner, C.E. 1959. *Educational Psychology*. Prentice University.

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Block – II

Unit - 3

THEORIES OF MOTIVATION

Contents:

3.0 Introduction

3.1 Objectives

3.2 Theories of Motivation

3.3 Maslow's Self-Actualization Theory

3.4 Clelland Achievement Motivation Theory

3.5 Role of Teacher in Achievement Motivation

3.6 Summing Up

3.7 Questions and Exercise

3.8 References and Suggested Readings

3.0 Introduction:

Like motivation, theories of motivation are equally important for a teacher. There are various theories of motivation that we are going to discuss in this unit. These theories may be referred to have a better understanding about its application in motivating the students.

3.1 Objectives:

After going through this unit, you will be able to:

- understand various theories of motivation.
- analyse Maslow's Self-Actualization Theory and Mc. Clelland Achievement Motivation Theory

3.2 Theories of Motivation:

The following theories explain motivation and all its distinct varieties. We may find that these theories supplement one another and point towards the same truth.

- ➢ **Pawn Theory:** This is based on the transcendental approach to the problems of life. According to this theory, we are 'pawn', puppets, instruments in the hands of God. Both classical and Freudian psychologists land Behaviouristic theories

of learning derive their strength from this. This pawn theory passes on the responsibility to some 'mysterious power' which is something intangible.

➢ **Energy Theory:** If ther is no energy, there is no motivation. According to Freud the source of physical energy is Eros and according to Jung, it is Libido. As a matter of the fact this theory offers no explanation.

➢ **Instinct Theory:** McDougall is said to be the originator of this theory. According to him, "The "human mind has certain innate or inherited tendencies which are the essential springs or motive powers of all thought and action, whether individual or collective and are the bases from which the character and will of individuals and of nations are gradually developed under the guidance of the intellectual faculties." McDougall put forward a list of 41 instincts and attached 14 emotions with them. This theory was very popular in Britain with. Nunn, Burt, Ross, Hughes and Valentine etc. However, the American psychologists do not find any Weight in this theory.

➢ **Stimulation Theory**: All inner and outer stimuli that bear upon a person at any one time constitute a person's psychological field and determine behaviour jointly through inter-action.

➢ **Need Theory:** There are two sets of needs: (i) primary or biological, and (ii) secondary or psychological. The more Intense the need, the more the motivation.

➢ **Behaviour or Learning Theory:** This is more elaborate than the need theory. Hull and his associates are the supporters of this theory. The theory has three main tenets: (a) All motivated behavior is based on needs and desires; (b) All learning involves reward in the sense that only those responses that reduce need or drive are stamped in; and (c) need may be biological or psychological, primary or secondary.

➢ **Social Theory:** According to this theory, causes of social behaviour are to be found in the social environment. There are two streams of this theory:

  • **Cultural Pattern:** According to this view, an individual is cast in the mould of the culture to which he belongs. The different cultures would, therefore, produce different types of personalities.

➢ **The Field Theory:** According to this theory behaviour is caused by the interaction between a person and his environment.

➢ **Depth Theory:** Freud is the main protagonist of this theory. The spring of action is the unconscious which is dark, ruthless, very powerful and illogical. Special exploratory techniques are needed to dig out the unconscious. Unconscious motives influence our conscious thought and conduct.

> ➤ **Physiological Theory:** This theory holds that the secrets of the mind are locked within the cells of the nervous system.

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CHECK YOUR PROGRESS:

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1. Write any two theories motivation?

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3.3 Maslow's Self-Actualization Theory:

Abraham Maslow (1954) has developed a hierarchical order of needs from psychological needs to self actualization needs. Maslow classified the needs starting from basic survival or lower order needs to higher order needs. These are:—

   i.   Psychological needs
   ii. Safety needs
   iii. Love and Belongingness
   iv. Esteem needs
   v.   Achievement needs
   vi. Aesthetic needs
   vii. Self-actualization needs.

Maslow says that these needs can be arranged in a hierarchy. A man is never satisfied with all his needs. If one need is satisfied, another need would arise and this is a human tendency.

Fig- 2.1: Maslow's Hierarchy of Needs

Maintenance Needs: The first four needs such as psychological needs, safety needs, love and belongingness needs and esteem needs are considered to be maintenance needs or motives. These needs are strong and recurring. They became very strong when they are denied. These needs are granted or denied by external factors. So, the teachers should see that these needs are satisfied among students when they are educated.

Growth Needs: The other three needs such as achievement needs, aesthetic needs and self actualization needs are considered to be growth needs and they spring from within. They are mild and continuing. They grow stronger when they are fulfilled. So, the teachers have to make students realize these needs for their own good.

In the hierarchy of needs, if the first need is fulfilled, the next need becomes dominant and thus it reaches the self-actualization need, which is the highest level of functioning.

1. **Psychological needs:** These needs are the most potent of all and these are basic needs. Satisfaction of these needs is very much essential even for the existence of an individual or for physical well-being. Need for food, water, oxygen, rest, sleep and elimination of waste products from the body is fundamental for survival. All of our efforts are directed towards the satisfaction of these fundamental needs. In the course of an education programme, teachers should ensure that these needs of students are fulfilled.

2. **Safety needs:** Safety needs are about order and security. These needs become dominant when physiological needs are gratified. Every organism wants safety and security. For example, when the child goes to school for the first time, it weeps and cries with the idea of losing safety and security.

3. **Love or Belongingness needs:** These needs emphasize the gregarious nature of man. Everybody has a desire to love and to be loved that leads to maintaining pleasant and happy relations with others. Further, everybody wants to identify with a group, with family, with friends at school, with his village or town, with his country etc. These healthy relations provide strong motivating force to the individuals for learning or any other activities. So, the teachers should be very kind and affectionate towards all students.

4. **Esteem needs:** Esteem needs mean prestige, social status, reputation, self-esteem, self-respect and self-regard. Every individual wants to be thought highly of. One feels hurt when his self respect is injured. The teacher should not insult the students in the classroom. Each one in respective given group wants to gain appreciation, esteem and recognition from others. So, the teacher should recognize the work of their students and appreciate them, whenever necessary.

5. **Achievement needs:** Some people seek achievement in athletic activities, while others seek it in intellectual fields or even in the spiritual world. Every human being manifests the need for achievement. The achievement of an individual

depends upon his talents and the environment. It is the duty of the teacher to provide knowledge and a favourable environment for high achievement.

6.   **Aesthetic needs:** Aesthetic needs mean appreciation of beauty and ordering of things or arrangement of things appropriately. Everyone derives pleasure in appreciation of beauty, music and nature. The poets are the best examples of this.

7.   **Self- actualization needs:** Self-actualization mean maximum development of an individual in whatever he is capable of. In other words, it means to fulfill one's individual nature in all its aspects. Self-actualization assumes freedom from the restrains of society and the desire to attain perfection in all aspects of life.

Self-actualization is the highest need. Therefore, this need is also called Maslow's Self-actualization theory. All these needs should be satisfied in the learner for their effective learning. It is the responsibility of the teacher to check with the students whether all these needs are satisfied.

CHECK YOUR PROGRESS:

2. The motivation, which is directed towards the attainment of excellence, is called _____ motivation.

3. Self Actualization Theory was developed by_____.

4. Write hierarchy of needs of achievement motivation?

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STOP TO CONSIDER:

Abraham Maslow (1954) has developed a hierarchical order of needs from psychological needs to self actualization needs. Maslow classified the needs to start from basic survival or lower order needs to higher order needs. They are: Psychological needs, Safety needs, Love and Belongingness, Esteem needs, Achievement needs, Aesthetic needs, and Self-actualization needs.

3.4 Clelland Achievement Motivation Theory:

Achievement motivation is a new concept in the world of motivation. It is personal in nature. Psychologists consider that all human behavior is intended to reduce tension and reach a state of physiological and psychological equilibrium. But, McClelland states

that rather than being essentially tension states, motives are also drives towards action based on expectation. David Clarence McClelland is most noted for describing three types of motivational need, which he identified in his 1961 book "The Achieving Society"

Achievement Motivation: Achievement drive motivates a person to seek achievement, attainment of realistic but changing goals and advancement in the jobs. There is need of feedback to have achievement and progress.

Authority/Power Motivation: Authority or power drive motivates a person to seek power and became influential, effective and to make an impact. It tends to increase one's personal prestige and status.

Affiliation Motivation*:* Affiliation drive motivates a person to maintain a friendly relationship and a need to interact with other people. It urges to be likely by others and getting regards from others. People having affiliation motivation are found team players.

MacCelland held the view that, most people possess and exhibit a combination of these characteristics. But some people exhibit a strong bias to a particular motivational need. This mix of motivational needs consequently affect the behaviour and working style of persons.

- **Meaning and Definitions of Achievement Motivation:**

American, David Clarence McClelland (1917-98) is chiefly known for his work on achievement motivation. David Clarence pioneered work place motivational thinking, developing achievement motivational theory and models, and promoted improvements in employee's assessment methods, advocating competency based assessments and tests, arguing them to be better than traditional IQ and personality based test.

Achievement motivation is the desire to do better, to achieve unique accomplishment, to complete with standard of excellence, and to involve oneself with long term achievement goals. However, different psychologists have defined achievement motivation as follows:

According to **McClelland and Atkinson**, "Achievement motivation may be associated with a variety of goals, but in general the behavior adopted will involve activity which is directed towards the attainment of some standard of excellence."

Atkinson and Feather (1966) state: "The achievement motivation motive is concerned as a latest disposition which is manifested in overt striving only when the individual perceives performance as instrumental as a sense of personal accomplishment."

In general achievement motivation is expectancy of finding satisfaction in mastery of difficult and challenging performances but specifically in the field of education it stands for the pursuit of excellence.

The basis of achievement motivation is the desire to achieve. A person, who has engaged in a task with an achievement motive, is said to work in the spirit of achievement motivation. Achievement motivation is very essential for anyone to improve performance at school.

Achievement motivation is a disposition to approach success or a capacity for taking pride in accomplishment. If a person has a greater degree of achievement motivation, he will have higher level of aspiration, which will lead to greater achievement.

3.5 Role of Teacher in Achievement Motivation:

The teacher can play an important role in the development of achievement motivation by taking the following steps.

> ➢ The teacher should emphasise the importance of achievement motive in life by means of narrating the exploits of great personalities and there achievement. Children may be motivated to follow the footsteps of great persons.
> ➢ The teacher's encouraging and friendly attitude and his enthusiasm in work will create the necessary environment for achievement motive in children.
> ➢ The teacher will guide the students in developing realistic achievement motives.
> ➢ Attempt should be made to convince the students that new motives will improve their self-image and is an improvement upon the prevailing ones.
> ➢ The teacher should develop habit of self study among students.
> ➢ The teacher should encourage the students to evaluate their own achievement from time to time.
> ➢ The teacher should develop conducive social environment in the class so that every student should think that he is wanted and has a role to play.

STOP TO CONSIDER:

Achievement motivation is the desire to do better, to achieve unique accomplishment, to complete with standard of excellence, and to involve oneself with long term achievement goals.

3.6 Summing Up:

Abraham Maslow (1954) has developed a hierarchical order of needs from psychological needs to self actualization needs. Maslow classified the needs to start from basic survival or lower order needs to higher order needs. They are: Psychological needs, Safety needs, Love and Belongingness, needs, Esteem needs, Achievement needs, Aesthetic needs, and Self-actualization needs.

McClelland and Atkinson came to the conclusion that in the individual there is a need for achievement (N.Ach.). A person who has a high need for achievement considers problems obstacles as challenges to be met. According to this theory, individuals are differing from one another in the strength of achievement motive. It is this difference in the strength of motivation to achieve that is important in understanding the development. The need for achievement develops in early childhood. It depends upon the discipline of the family where the child belongs to. Parent's expectation and guidance to the child develop need for high achievement in life.

3.7 Questions and Exercise:

1. Explain Maslow theory of motivation and its implication for learning.
2. What do you understand by the term Achievement Motive? what are the characteristics of individual who has strong achievement motives. State the different techniques of its achievement.

3.8 References and Suggested Readings:

Aggarwal, J.C.1994. *Essentials of Educational Psychology*, Vikash Publishing House Pvt. Ltd. New Delhi.

Bhatia, B.D. and Raghunath Safaya.1992. *Educational Psychology and Guidance*, Delhi: Dhanpath Rai and Sons.

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Block – II

Unit – 4

STRATEGY TO ENHANCE MOTIVATION IN THE CLASS

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4.0 Introduction

4.1 Objectives

4.2 Strategy to enhance motivation in the class

4.3 Inducing Motivation in Classroom Activities

4.4 Summing Up

4.5 Questions and Exercise

4.6 References and Suggested Readings

4.0 Introduction

Students in the classroom learning need constant motivation from the teachers so that optimum use of their talents may be made for their development. The needs are the basis of motivation. Therefore, techniques that the teachers employ to arouse and maintain motivation will be successful only in so far as they make them perceive that progress is being made towards need satisfaction. Since students differ in regard to their specific needs according to their personality pattern and socio-economic background, the teacher will have to vary their motivational techniques and employ them judiciously.

4.1 Objectives:

After going through this unit, you will be able to:

- Know various Strategies to enhance motivation in the class
- Induce Motivation in Classroom Activities

4.2 Strategy to enhance motivation in the class:

Teacher plays an important role in motivation. Without motivation learning cannot take place. Therefore, a teacher has to adopt different types of techniques to motivate students in their learning. Let us discuss some of the techniques to be adopted by the teacher to motivate students.

Presenting well defined learning objectives: It is known that action is objective based. So learning being a great action has its own objectives. A teacher should clearly define the learning objectives for his learners so that the learners may be motivated properly.

Presenting curriculum in well organized and systematic way: Learning is facilitated with the curriculum. Children find interest in learning with simple and easy curriculum and become disinterested in different curriculum. Therefore, a teacher will have to organize and present the curriculum in a systematic and well organized manner in order to motive learners.

Teaching with appropriate methods in keeping with the standard of the children: Method of teaching helps in clarifying doubts and making the meaning understandable for learners. Therefore a teacher should adopt and apply interesting and suitable methods of teaching keeping in view the level of students with respect to their intelligence, age, interest and need so that the students will be motivated more in their learning.

Teaching supplemented with adequate teaching aids: Teaching dominated by the oral and theoretical concepts is likely to kill the interest of the learner and result in poor motivation for learning. Therefore a teacher should use different types of suitable and relevant teaching aids that are will result in greater motivation for learning.

Arranging re-creational facilities for children during learning: Compelling students in to over-learning with zero re-creational activities result boring and distracting them. It also leads to poorer motivation. Therefore, a teacher should allow students to enjoy some recreational activities during the time of their learning, especially when they are bored and tired so that so that they will be freshly motivated in their learning.

Avoiding a masterly manner and instead being friendly and acting as a counsellor while teaching: A teacher should not act as a master who only directs and teaches his students but should be receptive to their interests and needs. He should be a friend, philosopher and guide who helps and counsels them, understand their needs and solves their problems inside the class room and out of it.

Providing adequate feedback to the learners: Learners often face difficulties in their learning. It is necessary for the teacher to provide adequate feedback for learners to proceed ahead. Providing feedback in due time and in proper manner will motivate the learner to learn more and learn better.

Avoiding punishment and instead providing reinforcement to the learner: A teacher should avoid inflicting rigorous punishment on students. Mild punishment may

result in improvement in learning and rectification in the behavior but heavy punishment will yield negative results in learning and motivation.

Making teaching more interactive: Passive learning method makes students lose interest and motivation. Sometimes unidirectional teaching makes the classroom monotonous and dull. Interactive teaching strategies involving students' and bi-communication and bidirectional teaching and learning will make the classroom live and active. It will make the students more motivated in their learning.

4.3 Inducing Motivation in Classroom Activities:

4.4 Summing Up:

The teacher plays an important role in motivation. Without motivation learning cannot take place. Therefore, a teacher plays a great role in adopting different types of techniques to motivate students in teaching learning process. The teacher should:

- present well defined learning objectives
- present curriculum in well organized and systematic way
- teach with appropriate methods in keeping with the standard of the children
- teach supplemented with adequate teaching aids
- arrange re-creational facilities for children during learning
- avoid a masterly manner and instead being friendly and acting as a counsellor while teaching
- provide adequate feedback to the learners
- avoide punishment and instead providing reinforcement to the learner
- make teaching more interactive

4.5 Questions and Exercise:

1. Discuss different types of strategies to be adopted by a teacher to motivate his students in classroom teaching.
2. How can you induce motivation in classroom activities ?

4.6 References and Suggested Readings:

Bhatia, B.D. and Raghunath Safaya.1992. *Educational Psychology and Guidance*, Delhi: Dhanpath Rai and Sons.

Kuppuswami, B. 1991. *Advanced Educational Psychology*, New Delhi: Sterling Publishers.

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BLOCK III:
INTELLIGENCE AND CREATIVITY

Unit 1 : Meaning, Definitions and Nature of Intelligence

Unit 2 : Types of Intelligence

Unit 3 : Piaget's Theory of Cognitive Development

Unit 4 : Meaning, and Nature of Creativity

BLOCK III- INTELLIGENCE AND CREATIVITY
UNIT -1
INTELLIGENCE

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1.3 Meaning of Intelligence
1.4 Definitions of Intelligence
1.5 Nature of Intelligence
1.6 Influence of Heredity and Environment on Intelligence
1.7 Summing Up
1.8 References and Suggested Readings

1.1 Introduction:

In this earth, a man is always different from other living creatures. Man can think according to need, man can judge what is right and what is wrong analysing the situations. Man can also take decisions in society's acceptance way. All these are not possible in case of other animals because of the absence of one factor - intelligence. So here in this chapter, it is tried to know what intelligence is along with explaining the nature of it. This chapter also discusses the role of heredity and environment on intelligence.

1.2 Objectives:

After the discussion of this unit, you will be able to-

- understand the meaning and nature of intelligence
- explain the role of heredity on intelligence development
- discuss the influence of environment on intelligence

1.3 Meaning of Intelligence:

.   The word intelligence is used very often in the life span of every human being. Intelligence plays a dominant role in all kinds of human activities. The success or failure of any task largely depends upon it. In the simplest sense, intelligence is termed as the ability to think, ability to do and the ability to adjust. It is the general mental ability with the help of which people perform all the tasks purposefully. Intelligence refers to the totality of behavioural experiences of an individual with rational thinking capacity. It is described as the ability to perceive or infer information, and to retain it in the form of knowledge to be applied towards adaptive behaviours within an environment or context.

The term "Intelligence" has been derived from the Latin root "*Intelligentia*" which means to comprehend or understanding or knowledge. In ancient India, a term "*Viveka*" was mostly used by the great Rishis and this "*Viveka*" is today known as Intelligence. It is the reasoning

ability which helps to learn and understand things. In short, intelligence is the capacity of mind by application of which knowledge acquisition is possible and same can be applicable at need time.

1.4 Definitions of Intelligence:
In the field of psychology, the word intelligence is used in a very comprehensive way. Different psychologists have defined it in a number of ways which are given below:

According to **Wells,** "Intelligence is the property of recombining our behaviour patterns so as to act better in a novel situation".

Alfred **Binet** Said, "Intelligence is what intelligence tests test".

In the opinion of **William Stern**, "Intelligence is a general capacity of an individual consciously to adjust his thinking to new requirements. It is the general mental adaptablity to new problems and conditions of life."

Jean Piaget said, "Intelligence is the ability to adapt to one's surroundings".

Wagnon viewed, "Intelligence is the capacity to learn and adjust to relatively new and changing conditions".

All the definitions mentioned above explain intelligence as the adjustment ability of individual with his or her surroundings. Some psychologists want to explain intelligence as the ability to think, some say ability to learn and some others consider this concept as the ability of accomplishing task. Therefore a few definitions which describe intelligence as thinking or learning power or task accomplishing ability can be mentioned below:

Thorndike defined intelligence in the year 1914 as "the power of good responses from the point of view of truth or fact"

Buckingham, "Intelligence is the learning ability".

Dearborn said, 'It is the capacity to learn or profit by experience"

According to **Terman,** "An individual is intelligent in the proportion that he is able to carry on abstract thinking"

Woodworth and Marquis said "Intelligence means intellect put to use. It is the use of intellectual abilities for handling a situation or accomplishing any task."

A comprehensive definition of intelligence given by David Wechsler is cited here. This definition covers all the areas of thinking capacity, activity performance capability along with adjustment ability of individual. According to **Wechsler,** "Intelligence is the aggregate or global capacity of an individual to act purposefully, to think rationally and to deal effectively with his environment."

Stoddard's definition on intelligence is also very comprehensive. In the year 1943, he defined intelligence as "the ability to undertake activities that are difficult, complex and abstract and which are adaptive to a goal, and are done quickly and which have social value and which lead to the creation of something new and different."

According to **Gates & Others**, Intelligence is a "composite or organization of abilities to learn, to grasp broad and subtle facts, especially abstract facts with alertness and accuracy to exercise mental control and to display flexibility and ingenuity in seeking the solution of problems".

After the discussion of all these above cited definitions, it becomes clear that intelligence is one kind of energy of individual in the form of mental abilities. These abilities help an individual to adjust with new situation effectively. For example, supposed 100 students take admission at the degree course in a college. At the beginning of the session, newly admitted students will definitely face some problems related to course and adjustment in new situation. But gradually they will adjust with their classmates, teachers, in new academic environment and surely attain knowledge according to their own capacity. The capacity which helped them to adjust in the college and to gain knowledge according to set goals, that capacity is intelligence.

Check your progress

Q.1.The word intelligence has been derived from Latin root -----------(Fill in the blank)

....

. Q.2. Give any one definition of intelligence.

....

....

1.5 Nature or Characteristics of Intelligence:

The meaning and definitions discussed above reveal the following facts about the nature of intelligence:

➤ Intelligence refers to the general mental abilities.

➤ Distribution of intelligence is not equal among all human beings. It differs individual to individual.

➤ Intelligence follows the principle of normal distribution which states that the majority of the people are at the average category, a few are of above average means very bright and a few are of below average means very bright.

➤ Intelligence is not static in nature. It tends to vary in the same individual from age to age and from situation to situation

➤ Intelligence is an abstract concept which grows at the increase of age.

➤ Intelligence is basically a function of our neurons. So, its development or deterioration is closely related to our nervous system.

➤ Heredity and environmental factors influences a lot in the growth of intelligence in a person.

➤ Intelligence can be described as a sort of mental energy in the form of cognitive abilities.

➤ The existence or availability of intelligence within a person can be judged only in terms of the quality of his behaviour or performance.

➤ Intelligence is biological as well as social in nature.

> **Stop to consider**
> - Intelligence refers to the aggregate capacity of the total cognitive abilities of an individual with the help of which purposeful activity and rational thinking is done by him.
> - Intelligence is also described as the effective adjustment ability of a person to his new environment.

1.6 Influence or Role of Heredity and Environment on Intelligence:

Meaning of Heredity: The psycho-biological characteristics which we acquire from our parents at the time of birth are known as Heredity. It refers to all those psychological and biological qualities in children which are transmitted to them by parents through fertilized egg. The basic substances of heredity known as "Chromosomes" and "genes" determine these basic characteristics of individual and this is called heredity. In the words of R. S. Woodworth, "Heredity covers all the factors that are present in the individual when he begins life not at birth, but at the time of conception about nine months before birth."

Meaning of Environment: Without heredity, everything comes under the concept of environment. Environment means the surroundings comprises of all the natural as well as artificial components in the world which come to contact of the individual at different times. E. G. Boring and others say, "The environment is everything that affects the individual except his genes."

Role of heredity and environment: It is a matter of long lasting controversy whether intelligence is determined by heredity or by environment. This controversy regarding the relative role of heredity and environment on intelligence has given rise to three approaches:

(a) The first one is extreme genetic determinism approach according to which intelligence differs in individuals due to genetic inheritance.

(b) Secondly, extreme environmentalism approach which considers difference in intelligence in different individuals is because of quality of environment of children and

(c) The interaction approach which adopts the view that differences between individuals are the outcome of interactions between heredity and environment.

All these three approaches in case of intelligence development can be discussed in the following way-

(a)Extreme Genetic Determinism Approach or the Heredity theory explains that intelligence is completely determined by the genetic factors. The chief exponents of the heredity theory were Galton, Karl Pearson, Mc. Dougall.

Galton in the year 1869 conducted a research work "Hereditary Genius". In this work he tried to proof that when fathers are of superior level intelligence, then there is high probability of occurrence of greatly gifted children. He had experimented with identical twins and had found that twins exhibited marked similarity in their behaviour where heredity played the dominant role.

According to Karl Pearson the influence of environment is far less than the heredity in determining the intelligence. He had given evidence to show that for the people of same race within a given community, influence of heredity is seven times more than that of environment.

In 1969, Jensen in an article firmly expressed that genetic factors are strongly responsible for differences in intelligence. Jensen wrote his article after a research study carried over 1200 California School children taking from both black and white community. In that study it was found that black children scored 16 points lower in I.Q. test than that of the white children.

In 1975, Wilson conducted a twin study. In this study he tried to test I.Q. over 100 pairs of twins on the Wechsler scales at their age of 4, 5 and 16. He found a strong correlation between the I.Q. scores of identical twins in comparison to the scores of fraternal twins.

In 1981, Bouchard and McGue conducted a study and reported the results in comparative way by application coefficient of correlation. The results show that- the Coefficient of Correlation between identical twins have 0.86, between parents and children 0.56, between brothers and sisters 0.53, between half siblings 0.31 and between cousins 0.15. With the help of this study report, they tried to establish that co-efficient of correlation is higher in case of closer blood relationships and it decreases at the decrease of magnitude of blood relation. So this study proves that mainly heredity is responsible for intelligence development.

In this way, several examples can be noted here in establishing the hereditary approach. But much controversy is also there against these arguments which will be discussed in next approach that is in environmental approach.

Stop to consider
• Heredity theory says that an individual's intelligence is exclusively determined by the genetic factors.
• Bouchard, Mc. Dougall, Karl Pearson, Galton, etc. are the main supporters of genetic theory of intelligence.

(b) Extreme Environmentalism approach or Environmental theory gives lots of evidences in support of the role of environment on intelligence development. J.B. Watson was the main supporter of environmental theory of intelligence who stated, "Give me a child, I will make it as you want". Hereditary factors are discounted in this theory. Individual differences in intellect, personality, performance, etc. are all the outcome of learning and experience. So it is- differences in the quality of the environment that cause inequalities between individuals.

Evidence of strong Environmental Influences on Intelligence can be found in the following studies-

Schiff et al. of France in 1978 conducted a study on the I.Q. scores of children adopted by family from high socio-economic status. These I.Q. scores were compared to those of their siblings' scores who had not been adopted. The average I.Q score of adopted children was 111 and it was higher scorer in comparison to their siblings 95. The study proved that good environment can enhance the level of I.Q.

In 1984, Gottfried carried out a study and concluded that if the children are subjected to certain forms environmental stimulation during the early stages of life span, their intellectual development gets adversely affected

McGue & others in 1993 studied on identical twins. Identical twins were taken from both the groups means twins reared apart and twins reared in same environment. The result showed that the twins reared apart have less similar level IQ's than identical twins reared in the same environment.

Ceci in 2001 found that school attendance has an impact on development of intelligence or in improving I.Q. scores.

In this way, some factors such as family, education, enriched social environments, nutrition, and peer groups have all been linked to differences in IQ. As for example, a child may be born with genes for brightness, but if that child grows up in a deprived environment where he is malnourished and lacks access to educational opportunities, he may not score well on measures of IQ.

(c) The Interaction approach of intelligence views that heredity and environmental effect on intelligence development cannot be separated. In order to study the impact of environment on intelligence, we have to take subjects with the same heredity. After keeping them in different environments comparison can be made. Again the thing is same for studying the impact of heredity on intellectual development. Here the environmental factors must be identical and individuals of different heredity are brought up in same environment and scores are compared. The discussion done above makes it clear that heredity and environment are not separable. So, the conclusions we can draw is that all the qualities of life are in the heredity and all the evocations of qualities depend on the environment. In this way both heredity and environment are two ultimate determinants of every individual.

Check your Progress

Q.3. Watson was a supporter of environmental approach. (Write 'True' or 'False'.)

Q.4. Write the meaning of the term heredity.

………………………………………………………………………………………………………

………………………………………………………………………………………………………

1.7 Summing Up

In this unit, we have discussed the following main points

- Concept of intelligence as a general mental ability of an individual to do act purposefully, to think rationally and to deal effectively with the environment. It is the ability to undertake activities that are difficult, complex and abstract and which are adaptive to a goal, and are done quickly and which have social value and which lead to the creation of something new and different

- We have also discussed the Role of Heredity and Environment on Intelligence. The discussion and controversy on relative role of heredity and environment on intelligence has given rise to three approaches:

  (a) The first one is extreme genetic determinism approach according to which intelligence differs in individuals due to genetic inheritance.

  (b) Secondly, extreme environmentalism approach which considers difference in intelligence in different individuals is because of quality of environment of children and

  (c) The interaction approach which adopts the view that differences between individuals are the outcome of interactions between heredity and environment.

1.8 References and Suggested Readings:

(1) Armstrong, Thomas (2018). *Multiple Intelligences.* American Institute for Learning and Human Development. (www.institute4learning.com)

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BLOCK III- INTELLIGENCE AND CREATIVITY

UNIT II: TYPES OF INTELLIGENCE

Contents:

2.1 Introduction:

Various psychologists are of the view that intelligence is not a concept of single component. At different times, different theories are being developed by different persons. Some persons explain it from social perspective, some explain from emotional perspective some explain as an abstract concept, etc. So, in this unit, we will discuss the various types of intelligence like, Multiple intelligence, Social intelligence, Cultural intelligence and Emotional intelligence, etc.

2.2 Objectives:

After going through this unit, students will be able to

- explain the concept of social intelligence
- understand what cultural intelligence is
- describe the need of studying emotional intelligence
- understand the concept of multiple intelligence

2.3 Social intelligence:

Social intelligence is one of different clusters of "Intelligence" which means the capacity to know oneself and capacity to interact with other people effectively understanding them very well. Simply it means the ability to know oneself as well as the ability to know others. An individual's proficiency at social skills and social behaviour is known as social intelligence. It mainly refers to the "street smart" and 'common sense" quality of a person. Influence of environmental factors is very important in the development of social intelligence. It is not acquired by birth. Verbal and communication skills contribute a lot in the development of this

skill. Thorndike in the year 1920 formulated this concept for the first time and defined that social intelligence is the ability to understand men and women, boys and girls, to act wisely in human relations.

The term "competency" is associated to describe the meaning of social intelligence clearly. It refers to the ability or competency to understand someone's environment and healthy reaction capacity of a person to others for the sake of sound social environment. Healthy reaction means that type of behaviour which does not disturb the interpersonal relationships of people in a society. According to Social Scientist **Ross Honeywill**, "Social intelligence is an aggregated measure of self and social awareness, evolved social beliefs and attitudes, and a capacity to manage complex social change."

Being able to effectively communicate with a wide range of people in various settings is an important indicator of proficient social intelligence. Behaving appropriately in social settings is also an important quality which includes knowledge of social norms and rules.

Another integral component of social intelligence is to be a good listener. Social intelligence is correlated with emotional intelligence in that way, because of which a person is able to read others' emotions and feel empathy for other people. Social intelligence is a developed and learned skill, it is not inherited by birth. It can be improved by an individual taking action and working on all their social components. The **Key Elements or components of Social Intelligence are-**

The key elements of Social intelligence are-
(a) Verbal fluency or conversational skill
(b) Knowledge of Social roles, rules and scripts
(c) Effective listening skill
(d) Understanding others feeling and thinking
(e) Role playing and self-efficacy skill
(f) Impression management skill

Check your Progress

Q. Define Social intelligence.

....

Q. Mention any three key elements of social intelligence.

....

2.4 Cultural Intelligence

Cultural Intelligence is a new concept that refers to a multidimensional construct comprising of an individual's ability to function and manage effectively in diverse cultural settings. It can be conceived as an aggregate multidimensional composition of a person's ability

to act or accomplish task effectively in different cultural set up. **Cultural intelligence** is the capability to relate and work effectively across cultures, bearing similarity to the term cultural Quotient. In the year 2003, Christopher Earley and Soon Ang originated the term 'cultural intelligence' in the book *Cultural Intelligence: Individual Interactions Across Cultures* and abbreviated the concept as "CQ". According to Earley and Ang, "Cultural Intelligence is a person's capability to adapt as s/he interacts with others from different cultural regions and has behavioural, motivational, and meta-cognitive aspects."

According to Van Dyne, & Livermore, there are four kinds Cultural Quotient capabilities which are-(a) motivation (CQ Drive), (b) cognition (CQ Knowledge) (c) meta-cognition (CQ Strategy) and (d) behavior (CQ Action).

Motivation (CQ-Drive): CQ-Drive refers to an individual's interest and confidence to work effectively and efficiently in culturally diverse set-up. It includes-
- ✓ Intrinsic motivation of the person means deriving enjoyment even from culturally diverse experiences also.
- ✓ Extrinsic motivation of the person- means gaining benefits from culturally diverse experiences.
- ✓ Self-efficacy – having the confidence to be effective in culturally diverse situations

Cognition (CQ-Knowledge): It is a person's knowledge about how cultures are similar and how cultures are different place to place, institution to institution. It includes:
- ✓ knowledge of economic and legal systems
- ✓ knowledge about values, social interaction norms, and religious beliefs and
- ✓ Socio-linguistics aspect that means knowledge about rules of languages and rules for expressing non-verbal behaviors

Meta-cognition (CQ-Strategy):
CQ-Strategy or Meta cognition means how an individual person perceives or makes sense of various experiences experienced in different cultural set-up. It happens through accumulation and adaptation process of human being by making judgments of own thought processes and others. Meta cognition includes:
- ✓ Awareness of a person's own cultural knowledge
- ✓ Planning or making strategy before a culturally diverse encounter
- ✓ Checking assumptions and adjusting mental maps when actual experiences differ from expectations.

Behaviour (CQ-Action):
CQ-Action is a person's capability to adapt verbal and nonverbal behavior to make it appropriate to diverse cultures. It involves having a flexible repertoire of behavioral responses that suit a variety of situations. It includes both verbal and non-verbal behaviour. Verbal means modifying

verbal behaviors (e.g., accent, tone) and Non-verbal means modifying non-verbal behaviors (e.g., gestures, facial expressions).

Check your Progress

Q. 1. Enumerate the concept of Cultural Intelligence.

....

Q.2. Explain briefly on the four kinds of CQ capabilities.

....

....

2.5 Concept of Emotional Intelligence:

Emotional Intelligence is a combined concept of two different elements- one is Emotion and the other is Intelligence. So, in order to understand the concept of emotional intelligence, at first we must know the meaning of these two terms.

Emotions play a vital role in regulating the behaviour and activities of human being. Emotions are indispensible part of our life. Sometimes we consider emotions to be the driving force or we may say living force in guiding our behaviour. The term emotion has been derived from the Latin root "emovere" which means "to stir up" or "to excite". So, from this etymological meaning, emotion means to be stirred up or excited state of an individual. It can be described as the agitating or excited state of our mind and body. It refers to some sort of affective experiences characterized by physiological changes that lead to perform some acts which are little bit different from normal behaviour. Love, Anger and Fear are the three basic emotions of a child. Normally, emotions are associated with instincts and this is vice versa.

Intelligence is the ability to do, ability learn and ability to think. It is the aggregate or total capacity of an individual with the help of which the person can acquire new knowledge. It is adaptability of a person because of which he can cope up in any kind of new situation.

So, the concept of Emotional Intelligence has been emerged by combining these two concepts- emotion and intelligence. Like general intelligence, emotional intelligence is also the product of a person's own heredity and its interaction with his environmental forces. Peter Salavoy and John Mayer, these two researchers introduced this concept of Emotional Intelligence and it was popularized by Daniel Goleman in his book "Emotional Intelligence" published in the year 1996. It is the ability to recognize, understand and manage one's own emotion along with recognizing, understanding and influencing the emotions of others. Emotional intelligence has been defined as "the ability to monitor one's own and other people's emotions, to discriminate between different emotions and label them appropriately, and to use

emotional information to guide thinking and behavior" by Peter Salovey and John Mayer. Emotional intelligence is the ability to perceive emotion with proper justification, integrating it with thought process, understanding emotion and also the capacity to manage it with rationalization power.

There are total five basic Components of Emotional Intelligence which are-

(a) Self-awareness: Self-awareness is the ability to understand and recognize one's own emotions. Apart from recognizing and understanding one's own emotion, it also refers to being aware of the effect of one's mood, actions and emotions upon others. Self-aware individuals also recognize the relationships between the things they feel and how they behave. These individuals are also capable of recognizing their own strengths and limitations, are open to new information and experiences, and learn from their interactions with others.

(b) Self-regulation: Self regulation refers to expression of one's own emotions at right time, right place and in right platform. It is all about the expression of someone's own emotions appropriately.

(c) Empathy: Empathy means the ability to understand another individual's feeling. Besides understanding another person's feeling, it also covers what type of responses should be shown by people after knowing emotions.

(d) Motivation: Motivation is a driving force of individual which intends us to do or to act. Emotionally intelligent people have a passion to fulfil their own inner needs and goals instead of doing tasks for fame, money and recognition. They seek things that lead to their internal rewards

(e) Social Skills: Socials skills mainly meant the ability of communication or interaction of individuals with others in society. To be emotionally intelligent- active listening quality, verbal communication skills, leadership and persuasiveness etc. which are some examples of social skills must be available with the person.

Stop to Consider
- Emotional intelligence is the ability of a person to understand and control his own emotion as well as the ability to understand others emotions also.
- Total five basic components of emotional intelligence are- self awareness, self-regulation, empathy, motivation and social skills.

2.6 Multiple Intelligence:

Concept of Multiple Intelligence (M I):

Dr. Howard Gardner, a professor of education at Harvard University developed the theory of multiple intelligence in the year 1983. As a result of development in recent cognitive research this theory has emerged. According to this theory, students possess different kinds of minds and therefore learn, remember, perform, and understand in different ways.

This theory states, "W*e are all able to know the world through language, logical-mathematical analysis, spatial representation, musical thinking, the use of the body to solve problems or to make things, an understanding of other individuals, and an understanding of ourselves. Where individuals differ is in the strength of these intelligences - the so-called profile of intelligences -and in the ways in which such intelligences are invoked and combined to carry out different tasks, solve diverse problems, and progress in various domains."*

So, Professor of Psychology Dr. Gardner proposes nine different intelligences. Those nine intelligences and their nature in Multiple Intelligence (MI) theory can be explained in the following way-

- **Linguistic intelligence** (word skill dominated): They have well-developed verbal skills and sensitivity to the sounds, meanings and rhythms of words
- **Logical-mathematical intelligence** (number/reasoning smartness): These people have the ability to think conceptually and abstractly, and capacity to discern logical or numerical patterns.
- **Spatial intelligence** (picture smartness): Children of this category have the capacity to think in images and pictures, to visualize accurately and abstractly.
- **Bodily-Kinesthetic intelligence** (body skills dominated): Ability to control one's body movements and to handle objects skillfully.
- **Musical intelligence** (music smartness): Such types of people possess the ability to produce and appreciate rhythm, pitch and timber.
- **Interpersonal intelligence** (smartness related to deal with people): This is the capacity to detect and respond appropriately to the moods, motivations and desires of others
- **Intrapersonal intelligence** (self smart): Capacity to be self-aware and in tune with inner feelings, values, beliefs and thinking processes.
- **Naturalist intelligence** (nature smart): Ability to recognize and categorize plants, animals and other objects in nature
- **Existentialist (deep t**hinking Skill): They have sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why do we die, and how did we get here.

Among these nine, the first seven were introduced in the year 1983. Later, in 1999 the last two were newly added by Gardner. All the nine intelligences of MI theory and their skills with career preferences can be presented with the help of the following table-

	Intelligence	Skills and Career Preferences
1.	**Verbal-Linguistic Intelligence**	**Skills** - Listening, speaking, writing, teaching. **Careers** - Poet, journalist, writer, teacher, lawyer, politician, translator
2.	**Mathematical-**	**Skills** - Problem solving (logical & math), performing

	Logical Intelligence	experiments **Careers** - Scientists, engineers, accountants, mathematicians
3.	**Musical Intelligence**	**Skills** - Singing, playing instruments, composing music **Careers** - Musician, disc jockey, singer, composer
4.	**Visual-Spatial Intelligence**	**Skills** - puzzle building, painting, constructing, fixing, designing objects **Careers** - Sculptor, artist, inventor, architect, mechanic, engineer
5.	**Bodily-Kinesthetic Intelligence**	**Skills** - Dancing, sports, hands on experiments, acting **Careers** - Athlete, PE teacher, dancer, actor, firefighter
6.	**Interpersonal Intelligence**	**Skills** - Seeing from other perspectives, empathy, counseling, co-operating **Careers** - Counselor, salesperson, politician business person, minister
7.	**Intrapersonal Intelligence**	**Skills** - Recognize one's strengths and weaknesses, reflective, aware of inner feelings **Careers** - Researchers, theorists, philosophers
8.	**Naturalist Intelligence**	**Skills** - Recognize one's connection to nature, apply science theory to life **Careers** – Scientist, naturalist, landscape architect
9.	**Existential Intelligence**	**Skills** – Reflective and deep thinking, design abstract theories **Careers** – Scientist, philosopher, theologian

Educational Significance of MI Theory:

In our educational institutions, much more emphasis is given on academic development of children. Along with scholastic development, our society as well as school mostly gives attention on the linguistic and logical-mathematical intelligence. In this traditional concept of educational system, some other types of people who possess different types of potentials are always ignored. But Prof. Gardner says that any kind of educational institution must pay equal level attention to those children who are genius in art, music, architecture or may be in bodily activities. Therefore he states that - *"We should also place equal attention on individuals who show gifts in the other intelligences: the artists, architects, musicians, naturalists, designers, dancers, therapists, entrepreneurs, and others who enrich the world in which we live."*

But very unfortunately, it is seen that there are lots of children who are not getting the opportunity for development of their potentials in spite of having these gifts from God. Many children have these gifts means latent talents but don't receive much reinforcement for them in school. Many of these kids, in fact, end up their schooling being labeled "learning disabled," When the unique ways of thinking and learning of these children aren't according to the nature of a heavily linguistic or logical-mathematical classroom, then they are called as "ADD" (attention deficit disorder) or simply underachievers.

Check your progress

Q..Who introduced the Multiple Intelligence theory?

……

Q..How many intelligences are there in M.I. theory?

……..

The theory of multiple intelligence proposes a major transformation in the way our schools are run. It suggests that teachers must be well trained to present their lessons in a wide variety of ways using music, cooperative learning, art activities, role play, multimedia, field trips, inner reflection, and much more. The good news is that the theory of multiple intelligences has grabbed the attention of many educators around the country, and hundreds of schools are currently using its philosophy to redesign the way it educates children. The bad news is that there are thousands of schools still out there that teach in the same old dull way, through dry lectures, and boring worksheets and textbooks. The challenge is to get this information out to many more teachers, school administrators, and others who work with children, so that each child has the opportunity to learn in harmonious ways with their unique minds.

2.7 Summing Up:

The whole discussion of this unit may be summed up briefly in the following points-

- Social Intelligence as the capacity to know oneself and capacity to interact with other people effectively understanding them very well.
- cultural intelligence as an aggregate multidimensional composition of a person's ability to act or accomplish task effectively in different cultural set up
- Emotional Intelligence which refers to the ability of controlling one's own emotion and understanding others also. There are total five basic components of emotional intelligence which are- self awareness, self-regulation, empathy, motivation and social skills.
- The theory of Multiple Intelligence as stated by Dr. Gardner. In this theory, he proposes nine different intelligences which are –linguistic, logical or mathematical, kinesthetic, spatial, musical, inter personal, intra-personal, naturalist and existential types

2.8 References and Suggested Readings

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BLOCK III- INTELLIGENCE AND CREATIVITY

UNIT III: PIAGET'S THEORY

Contents:

3.1 Introduction

Jean Piaget, a Swiss Psychologist developed a theory of Intelligence in 1936 which is known as cognitive theory. It was the first theory to make systematic study on cognitive development of children. Because of his tremendous contribution in this field, Jean Piaget is called as the father of child psychology. Here, in this unit we will discuss this theory by Piaget focusing on its educational implications.

3.2 Objectives

At reading this unit, students will be able to -

- understand the basic components of intelligence development as suggested by Piaget
- describe the various stages of intellectual development in Piaget's theory
- comprehend the educational implications of this cognitive theory.

3.3 Piaget's Theory

According to Piaget, children are boned with a very basic mental structure based on which all subsequent learning happens. The very purpose of this theory is to explain the mechanism and process by which an infant becomes a child, after that a child develops to an individual having thinking and reasoning capacity.

To understand this theory, we have to study three basic aspects or components suggested by Piaget. These are-

(i)   Schemas
(ii)   Adaptation processes and
(iii)   Stages of cognitive development

Schema

A schema can be defined as a set of linked mental representations of the world, which we use both to understand and to respond to situations. A schema represents a unit of one's cognitive structure in the form of general potential to perform some kind of particular behaviour. As for example, infants' initial cognitive structure incorporates only those cognitive abilities or

potentials which help them to do their necessary acts like grasping objects, sucking mother's nipple, etc. Here, sucking schema refers to one's general cognitive ability or potential to suck objects. In this way, various schemas with their contents form the basic structure of children mind. He said that as a child gets older - his or her schemas become more numerous and elaborate. When children grow, they come to contact of physical and social environment. As a result they are able to form different schemas and it leads to change and modify their cognitive structure. The assumption is that we store these mental representations means "Schemas" and apply them when needed.

Intellectual growth as a process of Adaptation

According to Piaget, intellectual growth is a process of adaptation means adjustment to this world. This adaptation happens through Assimilation, Accommodation and Equilibration. **Assimilation** means the use of existing knowledge (schema) to deal with a new object or situation. It is a matching act between already existing schema and new environmental needs.
Accommodation refers to that situation when the existing knowledge (schema) does not work to deal with a new situation and it needs to be changed. In the process of accommodation, one has to learn new ways of thinking and behaving by making changes in one's existing cognitive structure.

Equilibration means a balanced or harmonious relationship between the child and his environment. Piaget asserted that the process of assimilation and accommodation helps the child to maintain a harmonious relationship between himself and his environment. This adaptation mechanism is nothing but Equilibration. It is the force which drives the learning process as we do not like to be frustrated and want to maintain balance by mastering the new challenge (accommodation).

This adaptation process of intellectual growth can be shown with the help of the following chart-

Assimilation

⇩

Equilibration

⇩

New situation

⇩

Disequilibrium

⇩

Accommodation

Stages of Cognitive Development

Piaget proposed four stages of intellectual development which are-
(i) Sensori-motor stage (From birth to 2 years)
(ii) Pre-operational stage (From 2 to 7 years)
(iii)Concrete operational stage (From 7 to 11)
(iv)Formal operational stage (From 11 to adolescence and adulthood)

According to Piaget, children's intellectual development is a matter of biological maturation and interaction with the environment. He never claimed that all children reach a particular stage at a definite age. He just gave indication of ages at which the average child can reach each stage. The descriptions of each stage are discussed below.

(i)Sensori-motor stage (From birth to 2years)

Characteristics of Sensori-motor stage are-

(a) The child cannot acquire language skill at this stage. It is characterized by absence of language.
(b) This stage is confined to infants' knowledge gained through motor and sensory interaction with the environment.
(c) This stage is characterized by a limited number of uncoordinated reflexes like sucking, looking , reaching and grasping by the neonates.
(d) The main achievement during this stage is 'object performance'. Object performance means the child knows that the thing/object still exists even if it is hidden.
(e) By the end of the Sensori- motor period children develop a permanent sense of self and object.

Stop to Consider
- Piaget's theory of intelligence is based on stages not on age.
- Total four stages of intellectual development are found in Piaget's theory which are- (a) Sensori-motor stage (b) Pre-operational stage (c) Concrete operational stage and (d)Formal operational stage

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(ii) Pre-operational stage (From 2 to 7 years)

During this stage the young children starts to think symbolically. He begins to ask for something through language ability rather than just reaching out the object. Pre-operational stage can again be subdivided into two- (a) Symbolic function sub-stage and (b) Intuitive phase.

(a) Symbolic function sub-stage which is also known as pre-conceptual phase comprises of approximately two to four years of age. At this stage, children cannot yet manipulate and transform information in a logical way. Their thinking is quite illogical. However, they now can think in images and symbols. Other examples of mental abilities are language and pretend play. Symbolic play is when children develop imaginary friends or role-play with friends. Children's play becomes more social and they assign roles to each other. Some examples of symbolic play include playing house, or having a tea party. The type of symbolic play in which children engage is connected with their level of creativity and ability to connect with others. Another characteristic of this stage is that children's intellectual structure is ego-centric in nature. Egocentric means children see the world from their own standpoint.

(b) Intuitive phase period is between the four to seven years. At this period, children tend to become very curious and ask many questions. They start to question by use of primitive reasoning. Irreversibility is a concept associated with this stage which is closely related to the ideas of centralization and conservation. Irreversibility refers to when children are unable to mentally reverse a sequence of events. In case of them, running from X to Y may not carry the same meaning as running from Y to X. Children show a marked inability to conserve continuous quantity.

(iii) Concrete Operational Stage (7 to 11years)

Characteristics of concrete operational stage are-

(a) Children begin to work with logical or operational thought.

(b) Children learn to deal with concepts and ideas which are in mental terms. This means child can work things out, internally in their head beyond their physical world.

(c) Children can think in terms of a set of interrelated principles rather than single bits of knowledge.

(d) Their ego-centric style of children thinking gets eliminated at this stage.

(e) The child develops the ability to conserve number, mass and weight both in terms of quantity and number of objects. He can think that change in appearance of an object may not alter its quantity.

(iv) Formal Operational Stage (From 12 years to adolescence)

Formal operational stage is the final stage of intellectual development according to Piaget. The main characteristics of this stage are-

(a) At this stage people develops the ability to think abstract concepts and logically tests hypotheses.

(b) Creative aspects or talents become very much visible within the children at this stage.

(c) Hypothetical and deductive reasoning is possible by children at this point.

Piaget stated that after the expiry of all these stages one by one, the child is supposed to reach the full intellectual potential. A person may discover the solutions of any problem through mental manipulation of symbols, through scientific thinking and through hypothetical analysis.

Check your progress

Q.. What are the basic components of Piaget's theory?

....

Q.. Write any two characteristics of Sensori-motor stage.

....

....

3.5 Summing Up:

- In this unit we have discussed the theory of Intellectual Development by Jean Piaget.
- Schemas, Adaptation processes and Stages of cognitive development are the three basic aspects of this theory.
- Piaget proposed that there are four stages of intellectual development of a child which are- Sensori-motor stage (From birth to 2 years),Pre-operational stage (From 2 to 7 years), Concrete operational stage (From 7 to 11) and Formal operational stage (From 11 to adolescence and adulthood)

3.6 References and Suggested Readings:

(1) Armstrong, Thomas (2018). *Multiple Intelligences.* American Institute for Learning and Human Development. (www.institute4learning.com)

(2) Bhatia, H.R. *Elements of Educational Psychology.*

(3) Chauhan, S.S. *Advanced Educational Psychology*.(Sixth revised edition.) Vikas Publishing House PVT LTD. Noida, 1998.

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(5) Mangal, S.K. (2014). *Advanced Educational Psychology* (Second Edition). PHI Learning Pvt. Ltd., Delhi.

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BLOCK III- INTELLIGENCE AND CREATIVITY

UNIT IV: CREATIVITY

Contents:

4.1 Introduction
4.2 Objectives
4.3 Meaning of Creativity
4.4 Nature and Characteristics of a Creative Person
4.5 Role of Teacher in nurturing Creativity
4.6 Summing Up
4.7 References and Suggested Readings

4.1 Introduction:

The concept of creativity occupies a very important place in field of educational psychology. If we open the pages of history, we will find several philosophers, poets, artists who were not bright in their academic life but were great man because of their innovative or creative works in this world. So, in this unit we will learn about what creativity is, what are the characteristics of a creative person and what role should be played by teachers to foster creativity among school children in school premises.

4.2 Objectives:

At the end of this unit, students will -
- be able to understand the concept of creativity
- identify the creative children
- be more aware on the role of teachers to promote creativity within children

4.3 Meaning and definitions of Creativity

Creativity means uniqueness, original thinking, new types of associations, divergent thinking, and new types of solutions to old problems. Simply it refers to newness in activity, thought and ideas. Creativity is the ability to make or otherwise bring into existence something new, whether a new solution to a problem, a new method or device, or a new artistic object or form. Creativity means having flexibility in applying new approach in different fields of life. Psychologists have explained various definitions to explain the concept of creativity.

In the words of **Carl Rogers**, "Creativity is an emergence in action of novel relational product growing out of the uniqueness of the individual on the one hand, the materials, events, people or circumstances of his life on the other."

Simpson defines, "Creative thinking involves new form of thinking away from the traditional forms. Thus creativity includes curiosity, imagination, research, novelty and invention etc."

According to **Guildford, "**Creativity sometimes refers to creative potential, sometimes to creative production and sometimes to creative productivity." Here, creative potential means the personal dispositions of the individual in which there are some more or less permanent qualities which help in innovative thinking. Creative thinking leads to new ideas. Creative production does not mean production of concrete objects or materials. It means the process of productive thinking. Again the last part of the definition is saying about creative productivity. It means productivity according to socially approved or confirmed forms of words, thoughts and phrases, etc.

Torrance said, "I have chosen to define creative thinking as the process of sensing gaps or disturbing, missing elements, forming ideas or hypotheses, and communicating the results, possibly modifying and retesting the hypotheses." In this definition Torrance said that Creativity involves new hypotheses, their tests and constant modification. In this process, first of all, a need is felt, then the problem is defined and clarified. After this, there is a period of preparation which involves reading, writing, discussion and analysis and gathering possible solutions of the problems. Then the advantages and disadvantages of different solutions are evaluated. At the end of this process, new ideas come to light in the form of insight and this is nothing but creativity.

According to **Sir Fredric**, "Creativity refers to bold thinking. Bold thinking means divergent thinking, breaking of old norms, having new experiences and creating new combinations."

In the words of **Stanger and Karwoski**, creativity implies the production of a 'totally or partially' novel identity.

Spearman defines Creativity as "power of the human mind to create new contents by transforming relations and thereby generating new correlates."

Psychologist **Stein** defined, "Creativity is a process which results in novel work that is accepted as tenable to useful or satisfying to a group of people at some point in time."

From all these above cited definitions, it can be pointed out that creativity is the ability or capacity of an individual to create, discover, or produce a new or novel idea or object, including the rearrangement or reshaping of what is already known to him which proves to be a unique personal experience. The most important traits of creativity are consciousness of the problem, continuity of thinking, continuity of words, continuity of association, continuity of expression, flexibility of thinking and accommodation, originality and re-definition, etc.

4.4 Nature and Characteristics of Creative Persons:

After going through this meaning and definitions, nature and characteristics of creativity can be well derived. Different theories have explained the nature of creativity in different ways. The psycho-analytic approach says that the creative persons satisfy frustrated ambitions and desires through creative processes. According to associative theory, the creative persons form new associations or recognize old ones in innovative ways. In the view of Gestalt theory, creative thinking involves change of central point, change of meaning and a novel organization. It involves insight which is the cause of sudden emergence of new ideas. Each approach clarifies a particular aspect of creativity in better way than the others. However, all psychologists more or less agree to say that it is a unique and novel personal experience. The nature and characteristics of creativity can be better explained with the help of the following points:

(i) Progressive or Dynamic thinking: Thinking of a creative person constantly changes according to the new circumstances. Creative persons possess more capacity of adjustment but this adjustment is sought through new combinations.

(ii) Problem Awareness and Commitment towards it: Without commitment towards the problem, no individual can have creative thinking and before commitment the person should have awareness of the problem. After knowing the problem, every effort is given to find out the new solution to the problem which is called commitment.

(iii) Creativity is Personal as well as Universal: The most important trait of creativity personality is capacity of original thinking with independence of judgement capacity. So, one's independent thinking cannot be of another person. Hence, it is personal. Creativity is also characterised as universal since it is not bound by the barriers of age, caste, creed, sex, location or culture. Every human being possesses the capacity of demonstrating creativity to some degree.

(iv) Possess Divergent thinking: Creativity is often characterized by divergent thinking, not convergent thinking. Convergent thinking refers to that thinking which is done as per approved social behavioural norms applying traditional methods of solutions. But divergent thinking is open thinking that applies originality, flexibility and continuity.

(v) Innate as well as Acquired ability: Though creativity is very often explained as God-gifted natural endowment but researches have proved that proper cultural environment, education and training also promotes creativity within children.

(vi) Creative individuals are Close to Novelty: Creativity is very closely related to the ability of a person to produce something in new way partially or as a whole. It never accepts repetition or reproduction of anything what has already been done by an individual. So, novelty or newness is one of the basic nature of creativity.

(vii) Creative persons pursue the originality of ideas and expression in their works.

(viii) Creative individuals carry Ego involvement. One's individuality and identity are totally merged in one's new creation. Normally, the creator takes pride in every creation and is reflected in behavioural statements like, "I have done it", "It's my idea", etc.

(ix) Flexibility: Flexibility of thinking in a creative person allows him or her to develop and adopt new attitude, idea or behaviour.

(x) Ability to go beyond the Immediate Circumstances is one of the prominent nature of creative individuals.

(xi) Harmony of Abnormal and Relevant thinking. Guilford said that creative individuals are capable to accommodate with relevant but abnormal thinking with the help of their creativity, reasoning and power of imagination.

(xii) Originality is an essential condition of creativity. Creative person applies new ideas, methods and attitudes to solve problems.

Stop to consider
- Creativity is the ability or capacity of an individual to create, discover, or produce a new or novel idea or object, including the rearrangement or reshaping of what is already known to him.
- All psychologists are agree to say that Creativity is a unique and novel personal experience of an individual.
- Creative persons pursue the originality of ideas and expression in their works.

4.5 Role of Teacher in Nurturing Creativity:

Creativity can be fostered within the young children by giving proper nurturing environment. We may discuss the following aspects as role of teachers for promoting creativity in children within school premise.

1. Active learning of students by application various innovative methods.

2. Use of technological tools and devices to the students.

3. Creating an environment for interaction opportunity among students to initiate problem-solving attitude.

4. Provide them with a lot of opportunities for hands-on fieldwork.

5. Organize round-table discussion with students at free time from time to time for the interesting topics.

6. Promoting questioning habit. Questioning means the power of inquiry not information and this capacity should be promoted by encouraging students to ask for question.

7. Teachers should allow students to create some of the subjective questions for their upcoming examination.

8. Establishing Emotional Connection also creativity can be promoted in students. Various researches have proved that creativity can be cultivated within young students best through emotional contacts.

9. Classroom activities play a crucial role in cultivating and developing creativity and confidence in the students. Teachers have this responsibility of providing an equal platform to every student in the classroom where each student's voice matters. Therefore, teachers should keep frequent discussion and interactive sessions for students in the classroom.

10. Teachers should make time for activities outside the classroom and provide an informal class opportunity for the students apart from academics.

Make a habit of memorizing each student's name meanwhile ensure that every student knows

11. Adequate freedom should be given to students for responding to a situation. They should be encouraged to think over a problem so that many ideas may come out as a solution to the problem.

12. Removal of hesitation and fear from students' mind can play very influencing role in creativity development. In a multilingual country like India, fear feeling with a sense of inferiority complex and hesitation blocks in creative expression of students. So, teachers role in this regard is very important.

Check your Progress

Q.1. Enumerate the concept of creativity.

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Q2. Describe the nature and characteristics of creativity.

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Q.3. Discuss the role of teachers in fostering creativity among students.

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4.6 Summing Up:

The discussion of this unit can be summed up in the following points briefly-

- Creativity, simply it refers to newness in activity, methods, thought and ideas of a person. It is the ability or capacity of an individual to create, discover, or produce a new or novel idea or object, including the rearrangement or reshaping of what is already known to him which proves to be a unique personal experience

- Teachers can play very influencing role to promote creativity within students by giving proper nurturing environment in school

- Removal of hesitation and fear feeling from students' mind is also one of the important point to be kept in mind by teachers for creativity development.

4.7 References and Suggested Readings

(1) Armstrong, Thomas (2018). *Multiple Intelligences.* American Institute for Learning and Human Development. (www.institute4learning.com)

(2) Bhatia, H.R. *Elements of Educational Psychology.*

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BLOCK IV:
UNDERSTANDING PERSONALITY

BLOCK IV: UNDERSTANDING PERSONALITY
UNIT 1
PERSONALITY

Contents:

1.1 Introduction

Behaviour is called as the mirror of personality. In educational psychology, understanding students' personality is very important aspect. The way in which an individual reacts or adjusts with the external environment is personality. Study of students' personality helps a teacher to design classroom environment, to provide academic as well as vocational guidance, etc. So, in this unit, we will learn the meaning and nature of personality.

1.2 Objectives

At the end of this chapter we will-

- Know the meaning of personality
- Understand the nature or characteristics of personality

1.3 Meaning and Definition of Personality

Personality is the totality of an individual's behaviour. It refers to the total quality of a person which is manifested in his various activities of daily life. This total quality of behaviour refers to a person's attitudes, aptitudes, interest, capacities, knowledge and behaviour pattern which are reflected in his relation with environment.

The word *Personality* has been derived from Latin root "Persona" which means masks. Earlier, the Greek actors wore the masks at the time of acting and accordingly the concept personality emerged. Personality is not a fixed and inborn endowment but an acquired disposition arising out of constant interaction with people around. Personality is a dynamic totality which is continuously changing due to interaction with the environment. A layman describes personality looking at the outer appearance of a person including his dressing behaviour. Everybody possesses some kind of personality. Even a neonate has also specific kind of personality. Therefore, Personality can be better explained by the conduct, behaviour, activities, movements and everything else concerning the individual in way of responding to the environment. Actually, personality is described in terms of an individual's behaviour, his actions,

postures, words and attitudes, opinions regarding his external world and also individual's cover feelings about his external world, one's feelings about himself. Simply it refers to a man within and outside the man himself or herself. Various definitions will definitely help to get a better understanding of the concept of personality and these definitions are cited below—

(i) Morton Prince (1924) **"Personality is the sum total of all the biological innate dispositions, impulses, tendencies, appetites and instincts of the individual and the acquired dispositions and tendencies."**

(ii) Famous behaviourist J. B. Watson in the year 1930 defined, "Personality is the sum of activities that can be discovered by actual observations over a long enough period of time to give reliable information."

(iii) According to G. W. Allport, a Professor of Harvard University (1948), "Personality is a dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to his environment." It is a very comprehensive definition since it includes all the aspects of a person. Here, in this definition the term 'Dynamic' refers that personality is undergoing a constant change but is still well organized. Again, the term 'Psycho-physical' was used in which psycho means mental and physical refers to body parts of the systems and both interact with the internal as well as external environment of the individual.

(iv) Woodworth, Professor of Colombia University (Newwork) and Marquis, Professor of University of Michigan (USA) jointly authored a book titled "Psychology" in 1922 and defined Personality as "The total quality of an individual's behaviour, as it is revealed in his habits of thought and expression, his attitudes and interests, his manner of acting and his personal philosophy of life."

(v) Cattell defined it as "Personality is that which permits a prediction of what a person will do in a given situation."

(vi) According to Eysenck, "Personality is the more or less stable and enduring organization of a person's character, temperament, intellect and physique, which determine his unique adjustment to the environment."

(vii) An American Psychologist S. R. Maddin in 1976 defined personality in a very comprehensive way in his book "Personality Theories- A Comparative Analysis". He defined in the following way, "Personality is the stable set of characteristics and tendencies that determine those commonalities and differences in psychological behaviour (thoughts, feelings and actions) of people that have continuity in time and that may or may not be easily understood in terms of social and biological pressures of the immediate situations alone."

(viii) Munn said, "Personality may be defined as the most characteristic integration of an individual's structure, modes of behaviour, interests, attitudes, capacities, abilities and aptitudes."

(ix) Psychologists of Gestalt school define personality "as a pattern or configuration produced by the integrated functioning of all the traits and characteristic of an individual."

(x)According to Kimble Young, "Personality refers to the more or less organised body of ideas, attitudes, traits, values and habits which an individual has built into roles and status for dealing with others and with himself."

Stop to Consider

- The term personality has been derived from Latin word 'Persona' which was associated with Greek theatre in ancient time.
- Personality is a dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to his environment

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1.4 Nature and Characteristics of Personality:

From the definitions cited above, the nature of personality can be depicted in the following points-

i. Personality refers to dynamic organization of Psychological elements of the system that are independent and these elements always function in a linking manner.

ii. Personality can change situation to situation, time to time in different environmental context.

iii. Personality is the combination of some Psycho-physical Systems. These Psychological elements of the system are traits, emotions, intellect, temperament, character and all these are based in the physical systems like neurology and endocrinology of the body.

iv. It is always unique in nature since everyone possesses different kinds of personality traits.

v. Personality is a consistent pattern of individuality - an individual behaves in the same way in different situations. But still it is dynamic in nature.

vi. Personality also includes thinking means cognitive, feeling means affective and psycho-motor means behavioural domain of individuality.

vii. Personality is the outcome of both heredity and environment. Because of the significant contribution of these two determinants personality of child grows gradually.

viii. Sometimes, personality is subjected to be found in disorganized and disintegrated form because of which persons experience some personality disorders like severe anxiety, traumatic experience, stress, damage to brain, etc.

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ix. Self-consciousness of a person is one of the major characteristics of Personality. It includes everything about a person.

x. Learning and acquisition of experiences contribute towards growth and development of personality. Every personality is the final product of this process of acquisition of learning experiences.

Check your Progress:

Q1. Enumerate the concept of personality.

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Q.2. Give a comprehensive definition of personality.

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Q.3. Describe any five points of characteristic features of personality.

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1.5 Summing Up:

In this unit we have discussed meaning, definitions and characteristics of personality. The discussion can be summed up in the following way-

- Personality is the total quality of behaviour of a person which comprises of attitudes, aptitudes, interest, capacities, knowledge and behaviour pattern which are reflected in his relation with environment.
- G. W. Allport, a Professor of Harvard University gave a comprehensive definition. In his words, "Personality is a dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to his environment."
- From the discussion on definitions, nature and characteristics of personality, it can be summed up that personality is a complex whole of a constantly growing and changing pattern of one's unique behaviour, emerged as a result of one's contact with environment and directed towards some specific ends.

1.6 References and Suggested Readings:

Armstrong, Thomas (2018). *Multiple Intelligences*. American Institute for Learning and Human Development. (www.institute4learning.com)
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BLOCK IV: UNDERSTANDING PERSONALITY
Unit 2
TYPES AND TRAITS OF PERSONALITY

Contents:

2.1 Introduction
2.2 Objectives
2.3 Types of Personality
2.4 Meaning of Traits of Personality
2.5 Types of Personality Traits
2.6 Summing Up
2.7 References and Suggested Readings

2.1 Introduction

Personality is a universal valid concept which is well explained by many psychologists at different times. There are two major approaches in personality – one is Typological approach and the other is Trait approach. Type and Trait of personality are different concepts. Traits are not types. Man has a trait, but he is not a type. Personality Traits refer to some endowments or qualities of individual. On the other hand personality types have been invented by observers as models in which individuals are best fitted without any consideration of their peculiarities. In this unit, we shall discuss on various types of personality, meaning of personality traits along with the different types of traits of personality.

2.2 Objectives

After going through this unit, students will be able to

- Know the different types of personality
- Understand the concept of personality traits
- Explain the different kinds of personality traits

2.3 Types of Personality

Personality type simply means what kind of behavioural nature a person is possessing in his life. Types of personality refer to some kind of artificial category made by other person in society. From the ancient times of human civilization, people classify objects' name and human into different categories for fulfilling various purposes of orderly life. These categories are called as "Types". Types are classified or invented by observers as models in which individuals are fitted without any consideration of their peculiarities.

In ancient Indian Knowledge System, **Ayurveda** classified human being on the basis of three elements present in the human body. This classification can be cited with the help of the following table-

Personality Type	Personality Characteristics
Bata (Wind)	This type of people feels emotionally insecure, indecisive, restless with active minds, having poor memory, god artists and enjoy travelling, solitary and rebellious.
Kafa (Mucus)	This type of people feels emotionally secure, calm and loyal and experience romantic. They need a lot of sleep, speak rationally and move slowly.
Pitta (Bile)	People of *Pitta* type are argumentative, precise with sharp intelligence, good leaders. At their worst time, they can be passionately angry. They enjoy sports and politics and have variety of dreams.

There have been many attempts by modern psychologists also to classify person on the basis of their personality pattern. **Thorndike** classified person into three categories on the basis of their thinking style-
(a) Abstract thinker
(b) Ideal thinker and
(c) Concrete thinker

Stop to Consider:
- Bata, Kafa and Pitta are three types of Personality classified by Ayurveda, one of the main branches of ancient Indian Knowledge System.
- Thorndike classified person into three categories on the basis of their thinking style as
  (a) Abstract thinker (b) Ideal thinker and (c) Concrete thinker

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According **to Carl Jung**, Personality is of two types-
(a) Introvert and (b) Extrovert
An introvert person is more inclined to remain with his internal ideas, experiences and thoughts. This kind of people is not much interested in taking part in the worldly affairs. Philosophers, scientists are usually of introvert type people. Self-introspection, self criticism is the basic nature of introvert. The main points related to **Introvert Characteristics** are-
1. Better at writing than at speaking.
2. Inclined to worry.
3. Easily embarrassed.
4. Inclined to be radical.
5. Fond of books and magazines.

6. More influenced by subjective feelings.

7. Rather reserved.

8. Likes to work alone.

9. Neglectful of ailments and personal belongings.

10. Lacking in flexibility

On the other hand, extrovert people are different from introvert. An extrovert is more active in all social set up. Extroverts want to work as per social needs. An extrovert does not pay much attention to other's criticism. Whatever comes to his mind, he can express without hesitation. This is the basic nature of extroverts since they do not like to involve in self-criticism. The main points of **Extrovert Characteristics are:**

1. Fluent in speech.

2. Free from worries.

3. Not easily embarrassed.

4. Usually conservative.

5. Interested in athletics.

6. Governed by objective data.

7. Friendly.

8. Likes to work with others.

9. Careful of ailments and personal belongings.

10. Flexible and adaptable.

Check your Progress

Q1. Write three characteristics of extrovert type people.

Q.2. Mention any three points of difference between Introvert and Extrovert type people.

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Most of the persons come in between the two types-Introvert and Extrovert. That is why Jung himself thought of another category –that is Ambivert which is in the middle of both introvert and extrovert.

Another classification of Personality was done by a German Psychiatrist Ernest Kretschmer on the basis of physical structure of individual. Kretschmer's classification of personality is cited below-

Personality Type	Characteristics
Pyknic	Such types of people have fat bodies and full chest. They are very much popular, sociable, jolly and easy going.
Asthenic/Leptosomatic	Such kinds of people are weak, tall, sensitive and thin. They are

	unsociable, reserved and pessimistic.
Athletic	Athletic type people are strong, healthy and energetic. They have balanced body. They are adjustable and optimistic by nature.
Dysplastic	Dysplastic category comprises of mixed nature of people.

An American Surgeon William Sheldon also classified personality into types according to their physical structure and temperamental characteristics. The following table depicts the types of Sheldon-

Personality Type	Characteristics/Temperament
Endomorphic	Such types of people are easy going, sociable, soft and love for physical comfort. They have developed viscera.
Mesomorphic	Mesomorphic people are muscular dominated and strong. They are energetic, lover of risk and adventure, self assertive.
Ectomorphic	Such types of people are thin and tall, fearful, introvert and artistic. They possess cerebrotonic temperament.

Spranger's classification:

E. Spranger, a German philosopher classified personality on the basis of interest shown by people in six categories-

Type	Characteristics
Theoretical	They neglect social and political participation
Economic	Economic people are very much interested in money making
Aesthetic	People who are lover and worshiper of beauty and are busy in sensuous gratification are called aesthetic type people
Social	Who are interested in social activities and festivals
Political	People who are of dominating type and very desirous of power, they are called political
Religious	Devotees to religious activities and mysticism are called Religiuos type people.

Check your Progress
Q1. Give a brief description of personality classification done by Sheldon.
Q.2. Critically discuss the Type approach of Personality.
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Criticism of Type Approach:

In spite of lots of contributions, objection arises against this type approach of personality. The fact is that human personality cannot be understood on the basis of type principle. Because a person is neither completely introvert nor extrovert in most of the cases we see.

Another criticism of type principle is that it creates misunderstanding between the cause and effect. It is misleading to say that an introvert may very well adjust himself by living in solitude. It may be because of his life history or life background. So, placing a person in specific category may not indicate the cause of adjustment. It simply describes his behaviour. In this way, type approach always

2.4 Meaning of Traits of Personality

Trait means a mode of behaviour that is shown by the person in a wide variety of situations consistently. Actually similar behaviour in different situations is a trait of personality. In the simplest sense by trait we mean a particular mode of behaviour which is manifested in number of life situations consistently. It is relatively enduring way in which one individual is found to be different from other.

According to Walter Michel, "Trait is a continuous dimension on which individual differences may be arranged quantitatively in terms of the amount of the characteristics the individual has."

Allport defined trait "as a generalized and focalized neuro-psychic system with the capacity to render many stimuli functionally equivalent and to imitate and guide consistent forms of adaptive and expressive behaviour."

Personality traits not only reflect people's characteristic features, but also reflect their patterns of thoughts, feelings, and behaviors. Personality traits imply consistency and stability—someone who scores high on a specific trait like Extraversion is expected to be sociable in different situations and over time. Thus, the study of trait says about the idea that people differ from one another in terms of where they stand on a set of basic trait dimensions that persist over time and across situations.

There are some basic criteria or properties which are essential for personality traits-

1. Consistency: To have a personality trait, individuals must be somewhat consistent across situations in their behaviours related to the trait. As for example, if an individual is talkative at home, then he or she will also be talkative at work.
2. Stability: Individuals with a trait are also somewhat stable over time in behaviors related to the trait. If they are talkative, for example, at age 30, they will also tend to be talkative at the age of 40.
3. Individual differences: People differ from one another on behaviours related to the trait. Using speech is not a personality trait and neither is walking on two feet—virtually all individuals do these activities, and there are almost no individual differences. But people differ on how frequently they talk and how active they are, and thus personality traits such as Talkativeness and Activity Level do exist.

4. Scalability: Traits are scalable since all traits can be measured and scaled quantitatively.
5. Universality: All individuals possess one or many traits irrespective of caste, place and nation. So. Personality traits are universal in nature.
6. Flexibility: Traits are not static in nature. Traits are naturally flexible at age of childhood and gradually at the increase of age, they become stable.
7. Inference from behaviour: Personality traits are not directly observable but they are manifested in a number of activities and verbal expression. Accordingly we infer a trait that is present in the individual.
8. Higher Order Habits: Traits are manifested in behaviour pattern of individual frequently. Therefore, some psychologists refer it as a higher order habit.
9. Traits are mental sets: It is readiness to respond to variety of situations in consistent way.
10. Learned behaviour: Traits are learned behaviour of individual as a result of the interaction with environmental stimuli.

Stop to Consider
- Trait is a continuous dimension on which individual differences may be arranged quantitatively in terms of the amount of the characteristics the individual has.
- Consistency is the most important characteristic of Trait. To have a personality trait, individuals must be somewhat consistent across situations in their behaviours related to the trait. As for example, if an individual is talkative at home, then he or she will also be talkative at work.

2.5 Types of Personality Traits:

Traits are the basic units of personality developed by an individual during its lifespan. Famous trait psychologists Allport and Cattell's classification are called as the best theories of trait approach. On the basis of their theories various types of traits are discussed below-

(i) **Cardinal trait**: Cardinal traits are those traits which influence all the major activities of an individual. An individual is known by cardinal traits. These traits are limited in number within just one and two in case of a person. This trait is also known as ruling master of sentiment possessed by an individual. For example, if a person has musical talent as cardinal trait, then in all situations he will bring a sense of musical interest irrespective of its actual demand.

(ii) **Central trait:** Central traits are few characteristic tendencies which can be ordinarily used to describe a person. These traits can be easily observed in a person and their number is limited to 4 to 10. Honesty, kindness, submissiveness, empathy, etc. are some example of central trait.

(iii) **Secondary trait:** Secondary traits are comparatively less important in the description of personality since their influences are limited. They are not strong enough like cardinal traits and central traits since they appear only in a small range of situations.

Cardinal trait, central trait and secondary traits are three major types of traits suggested by Allport in his theory. After Allport, Cattell classified personality traits into four main types-

(i) Common traits: Common traits are found to be widely pervasive in general population. These traits are found similarly in so many individuals in a society. Some examples of common traits are members of same culture exhibit common mode of adjustment, honesty, aggression, cooperation, etc. However, we should remember that common traits do not always express the personality of an individual.

(ii) Unique trait or Individual trait: In a sense all traits are individual since they are unique and applicable to one individual. However, individual traits are unique or peculiar to a person. As for example, emotional reactions, temperamental traits.

(iii) Source trait: Source traits are the underlying structures or sources that determine behaviour of the individual such as dominance, emotional submission etc.

(iv) Surface trait: Surface traits are those traits which are manifested in the overt behaviour of individual. Curiosity, honesty, tactfulness, dependability, etc. are examples of surface trait.

Check your progress:
Q1. Describe briefly the characteristics of personality Trait.
Q2. Explain the various classification of Personality Trait.
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2.6 Summing Up:
From the discussion on types and traits of personality, following points are given as brief summery-

- Types of personality refer to some kind of artificial category made by other person in society.
- Ayurveda classified personality type as –*Bata, Kafa and Pitta* in these three categories. **Thorndike** classified person on the basis of their thinking style- as (a) Abstract thinker (b) Ideal thinker and (c) Concrete thinker. **Carl Jung** categorised as (a) Introvert and (b) Extrovert type personality.
- By trait we mean a particular mode of behaviour which is manifested in number of life situations consistently. It is relatively enduring way in which one individual is found to be different from other.
- Allport suggested three major types of traits which are- Cardinal trait, central trait and secondary traits in an individual.
- Cattell says about four traits –common trait, unique trait source trait, surface trait of personality.

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BLOCK IV: UNDERSTANDING PERSONALITY

UNIT 3
THEORIES OF PERSONALITY

Contents:

3.1 Introduction:

In order to understand the true nature of personality, it is important to understand the various theories propounded by different psychologists. All the theories of personality can be classified from different perspectives. Theories of Kretschmer, Sheldon and Jung belong to Type approach, theories of Allport and Cattell belong to Trait approach, Eysenck's theory follows both of the Type cum Trait approach. Again, the theories by Freud and Adler adopt the Psycho-analytical approach, Carl Roger's Self theory and Maslow's theory follows Humanistic approach of Personality. In spite of having all these above mentioned theories, here in this unit we will study only four theories which are- by Freud, Allport, Carl Rogers and Cattell.

3.2 Objectives:

At the end of this unit, we will be able to

- Understand the psycho-analytic theory of Personality by Freud
- Have the idea of Allport's theory
- Understand the Roger's Self theory
- Get the idea of trait theory by Cattell.

3.3 Personality Theory by Freud

Famous psycho-analytic theory of personality was developed by Freud and he was the first psychologist to give maximum emphasis on instinct as a determinant of person's behaviour. According to him, there are two types of instincts and they drive the most important motivations

in our life. The first type of instinct is called 'Eros' which is for love and self presevation including the sexual drive (*libido*) and the another type is destructive instinct (*Thanatos*).

According to Freud, Personality is a total concept that is constituted of three factors- Id, Ego and Superego and the interactions and conflicts among these three components create personality. According to him, **Id** is *the component of personality that forms the basis of our most primitive impulses*. The id is exclusively unconscious and inborn instinctive behaviour. According to Freud, the id is driven by the pleasure principle and it creates a desire for immediate gratification of our sexual and aggressive urges. Example of id is addiction to smoke cigarettes, drink alcohol or view pornography. Id can never judge what is good or what is bad since it operates on animal level. Hence we can say that id is always biological in nature.

E*go* is the second concept which is based on the principle of reality. Freud explained the relationship between Id and Ego by giving the example of a Horse (Id) and its Rider (Ego). The ego is called as the executive level of personality structure. It emphasises that we must delay on gratification of our basic instinctive motivations until the appropriate time with the appropriate outlet. The ego is the largely conscious controller or decision-maker between Id and Superego of personality. The ego serves as the intermediary between the desires of the id and the constraints imposed by social norms, ideals values contained in the superego. Hence, Ego is psychological and it allows to live in reality.

The third concept level of personality is the Super ego in Freud's theory. Superego internalizes the sense of morality, ideals, values and thoughts prescribed by society through our parents. It develops gradually by the process of reward and punishment offered by the parents during childhood in our life. The superego tell us all the things that we shouldn't do, or the duties and obligations of society. The superego strives for perfection, and when we fail to live in as per its demands we feel guilty. So, Super ego is social-self and seeks perfection.

Freud explained personality as a combined concept that is built with these three unified and inter-related concepts –Id, ego and super ego. *Id* is raw, savage and immoral basic stuff of a person's nature that is hidden in the deep layer of his unconscious mind. It seeks only pleasure and therefore it cannot be allowed to dominate personality behaviour. As a result, the second system ego functions like policeman to control the unlawful activities by following the principle of reality. The third aspect of personality is super ego which is idealistic in nature. Perfection is its goal rather than pleasure. Actually ego maintains a balancing life between Id and Super ego. So, in one sentence it can be concluded that id is biological which seeks pleasure, ego is psychological which tests reality and super-ego is social self that always seeks perfection.

Stop to Consider

- Freud proposed that 'Eros' and 'Thanatos' are two types of instincts which determine behaviour of person.
- Id, Ego and Super ego are the three basic components that create personality

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3.4 Personality theory by Allport:

Gordon G. Allport in 1937 developed a trait theory of personality and said that traits are the basic units of personality developed by an individual during its lifespan. Allport was the first psychologist who rejected the notion of limited number of personality types and gave description of highly individualized personality structure. He described three types of personality traits in an individual which are- cardinal traits, central traits and secondary traits.

(i) **Cardinal traits**: Cardinal traits are those traits which influence all the major activities of an individual. An individual is known by cardinal traits. These traits are limited in number within just one and two in case of a person. This trait is also known as ruling master of sentiment possessed by an individual. For example, if a person has musical talent as cardinal trait, then in all situations he will bring a sense of musical interest irrespective of its actual demand.

(ii) **Central trait:** Central traits are few characteristic tendencies which can be ordinarily used to describe a person. These traits can be easily observed in a person and their number is limited to 4 to 10. Honesty, kindness, submissiveness, empathy, etc. are some example of central trait.

(iii) **Secondary trait:** Secondary traits are comparatively less important in the description of personality since their influences are limited. They are not strong enough like cardinal traits and central traits since they appear only in a small range of situations.

According to Allport, a person's unique characteristic or individual uniqueness is shaped by forming the core characteristic features with the help of cardinal traits along with a few central traits. All other remaining traits may also be observed in other people which are known as common traits. So, as per his theory, though an individual differs from others but also has some common traits with all others at least within the limits of cultural norms.

Allport's theory of personality said that traits give consistency in one's behaviour though traits are not fixed and stable always in all occasions. Besides trait, he also emphasised on some important concepts like functional autonomy, individualized approach in personality study and the discontinuous nature of development of personality. So, we can say that Trait theorist Allport brought revolutionary changes and gave a new dimension to the explanation of personality behaviour.

Check your Progress

Q. 1. Explain briefly the psychoanalytic theory of personality by Freud.

Q.2. What are the various types of personality traits as suggested by Allport.

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3.5 Personality theory by Carl Rogers

Carl Rogers in 1947, developed a theory of personality which is known as Self theory. His theory falls under phenomenological approach of personality which gives maximum stress on self concept for development of personality and was against the behavioural approach. According to him, personality behaviour is not based on physiological drives and needs but on a higher driving force within human being. This higher driving force impels the person towards complex personality pattern that is like a person seeks a kind of spiritual reward in a self-fulfilling religious sense.

In Rogers' theory, there are two basic concepts of personality structure - (a) Organism and (b) the Self. Rogers said, organism is the centre of all experiences of every individual in this world. An individual exists with full of experiences and these experiences shape our personality reactions to external objects and people. Our experiences influence on internal thoughts and emotions also. This is known as their phenomenal field. Phenomenal field means a person's reality, objects, behaviour, thoughts and people. The self is a part of experiences, part of this phenomenal field. It can be understood as 'I', 'me' or 'myself'. Personality is the product of an interaction of self with interpersonal and social experiences which they acquire in environment. Development of self is a continuous tendency of human being. Rogers believed that the concept of self is developed based on one's personal needs and sometimes on personal real experiences. Rogers divided the self into two categories; ideal and real self. The ideal self is the person you would like to be and the real self is what you really are. In the real world, a person's ideal self is not consistent with what happens in life with a person. Rogers advocated for continuity of growth for continuous evolution of self.

According to Rogers, there are no specific stages of personality development since human being possess the inherent tendency to develop their 'self' in the process of interpersonal and social experiences in their own environment. He emphasized the importance of present experiences for personality development and said that four conditions are necessary for self-actualization of an individual which are-

(i) Respect and love from others

(ii) Must have respect and faith within himself and his abilities for reaching goal.

(iii)Available choices or alternatives must be clear to the individual. Otherwise it may hinder in self growth.

(iv) The person must have clear understanding of choices and those choices should be clearly symbolized.

Stop to Consider
- In 1947 Self theory was developed by Carl Rogers.
- In Rogers' theory, there are two basic concepts of personality structure - (a) Organism and (b) the Self
- Rogers believed that the concept of self is developed based on one's personal needs and

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sometimes on personal real experiences.

3.6 Cattell's theory of Personality

According to R. Cattell,(1973) personality is a pattern of traits which help an individual to understand and predict his behaviour. Traits are permanent and they build the personality of an individual. Cattell in his theory classified personality traits into four main types-

(i) Common traits: Common traits are found to be widely pervasive in general population. These traits are found similarly in so many individuals in a society. Some examples of common traits are members of same culture exhibit common mode of adjustment, honesty, aggression, cooperation, etc. However, we should remember that common traits do not always express the personality of an individual.

(ii) Unique trait or Individual trait: In a sense all traits are individual since they are unique and applicable to one individual. However, individual traits are unique or peculiar to a person. As for example, emotional reactions, temperamental traits.

(iii) Source trait: Source traits are the underlying structures or sources that determine behaviour of the individual such as dominance, emotional submission etc. These traits appear time to time which indicate some deeper, more general underlying factors of personality, called as source traits. Source traits are the unifying factors of a person's personality that inter-correlate the surface traits and accordingly the basic structure of personality is made up by traits.

(iv) Surface trait: Surface traits are those traits which are manifested in the overt behaviour of individual. Curiosity, kindness, honesty, tactfulness, dependability, helpfulness,, etc. are examples of surface trait. Surface Traits or Central Traits are the visible qualities of personality.

According to Cattell, there are 23 source traits in a normal individual of which 16 basic traits were identified as factors through factor analysis. These sixteen basic traits or dimensions (factors) are -,

1. Reserved Vs. Outgoing
2. Less intelligence Vs. more intelligent,
3. Emotionally less stable Vs Emotionally stable,
4. Humble(Submissive) Vs. assertive(Dominant),
5. Serious (Sober) Vs (Enthusiastic) happy-go-lucky,
6. Expedient Vs conscientious,
7. Shy or Timid Vs venturesome,
8. Tough-minded Vs tender-minded,
9. Trusting Vs suspicious,
10. Practical Vs imaginative,
11. Forthright Vs shrewd,
12. Placid Vs apprehensive,
13. Conservative Vs experimenting,
14. Group-dependent Vs self-sufficiency,

15. Casual Vs controlled, and
16. Relaxed Vs tense.

In this way, Cattell described and predicted the behaviour of individuals on the basis of their personality traits. Basically, he worked on identification of basic dimensions of personality and after that developed instruments to measure these dimensions. However, it is to mention that Cattell's theory gave equal importance to the role of both heredity and environment in the growth and development of personality.

Check your Progress

Q.1. State four necessary conditions of self actualization in Rogers' theory.

Q.2. Describe briefly the four traits of personality suggested by Cattell.

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3.7 Summing Up:

In this unit we have studied the psycho-analytic theory of Personality by Freud, Allport's theory, Roger's Self theory and the trait theory by Cattell. The main points of the theories can be summed up as-

- Id, Ego and Super ego are the three basic components that create personality according to Freud. Ego maintains a balancing life between Id and Super ego since id is biological which seeks pleasure, ego is psychological which tests reality and super-ego is social self that always seeks perfection.
- Allport denied the notion of limited number of personality types. He gave description of a highly individualized personality structure. In his views, three types of personality traits are found in an individual which are- cardinal traits, central traits and secondary traits.
- In Rogers' self theory, personality behaviour is not based on physiological drives and needs but on a higher driving force within human being. This higher driving force only impels a person towards complex personality pattern that is like a person seeks a kind of spiritual reward in a self-fulfilling religious sense. He said that there are two basic concepts of personality structure known as- (a) Organism and (b) the Self
- Cattell said that personality is a pattern of traits which help an individual to understand and predict his behaviour and these traits are permanent in an individual.

3.8 References and Suggested Readings:

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BLOCK IV: UNDERSTANDING PERSONALITY

UNIT 4:
DETERMINANTS OF PERSONALITY

Contents:

4.1 Introduction
4.2 Objectives
4.3 Genetic factor as Determinant of Personality
4.4 Role of Social Factors on Personality Development
4.5 Culture as a Determinant of Personality
4.6 Summing Up
4.7 References and Suggested Readings

4.1 Introduction

Various psychologists have unanimously agreed that Personality is the unique combination of some patterns that influence behaviour, thought, motivation, and emotion in a human being. It is influenced by both biological and environmental factors among all the environmental factors, society and culture this two are the most important that shapes personality very strongly. So, in this unit we will discuss on various determinants of personality with special reference to heredity, society and culture.

4.2 Objectives

At the end of this unit, students will –

- Know the role of Genetic factors on Personality development
- Understand how Social Factors influence on Personality Development
- Conceive an idea about Culture as a strong Determinant of Personality

4.3 Heredity or Genetic factor as Determinant of Personality

Among all the determinants, Genetic factors are the basic that determine the development of personality behaviour of an individual. Genetic factors or Heredity provides the primary raw materials for basic aspects of personality like, physical appearance, intelligence, and temperament. Researches show that genetic factors have the importance in defining personality patterns through inherited roots like ductless glands, nervous system. Researches have proved that physical characteristics are result of genetic correlations but it is controversial to say whether the behavioural traits result from genetics or learned experiences.

An individual's heredity is proved to be present since the moment of conception in mother's womb. Heredity is depended on the genes of his parents and forefathers, that is, whatever someone gives to his offspring is only through the genes. The mechanism of heredity

can simply be described as exclusively a biological process. When male and female germ cells join after mating during fertilisation, it generates a fertilised ovum with roughly 46 chromosomes taking half from each parent. The chromosomes are tiny threadlike structures that contain hundreds of ultramicroscopic particles known as 'genes,' which are the true carriers of a person's hereditary information.

Actually, the maturation of physical and mental qualities is determined by an individual's hereditary endowment and such kind of maturity is closely related with the behavioural pattern of personality. It is heredity that provides the basic raw materials of personality like physical appearance, intelligence, and temperament. Psychologists like Galton, Mc Person, Goddard all of them studied on personality determinants in different times and found that the physical characteristics such as height, weight, colour of eye and skin, social and intellectual behaviour all are determined by heredity. Differences in these characteristics are due to the changes in the genes transmitted. Galton was the first Psychologist who conducted study on genetic inheritance of man taking the eminent and genius people of England as sample. He found that eminent men were from those families which had already at least one eminent member. Mc Person also studied a family with feeble minded mother and physically handicapped father possessing low intelligence. There were seven children in the family out whom five were feeble minded and all the seven were delinquent. So, these studies proved that eminence in family tree, low intelligence, delinquency, etc. are some personality behaviour inherited by birth from generation to generation.

Stop to Consider:

- An individual's heredity is proved to be present since the moment of its conception of a neonate in mother's womb.
- Chromosomes are tiny threadlike structures with hundreds of ultramicroscopic particles known as 'genes,' which are the true carriers of a person's hereditary information.
- Psychologists like Galton, Mc Person, Goddard all of them studied on personality determinants in different times and found that the physical characteristics such as height, weight, colour of eye and skin, social and intellectual behaviour all are determined by heredity.

4.4 Role of Social Factors on Personality Development

Morton Prince in the year 1929 explained personality by justifying the role of both Heredity and Environment in constituting the concept. According to him, "Personality is the sum total of all the biological dispositions, impulses, tendencies, appetites and instincts of the individual and the dispositions and tendencies acquired by experience." In the definition of Morton Prince, a person's various kinds of social as well as cultural experiences are equally

getting importance like heredity. Psychologist Allport also defined personality from both hereditary and socio-cultural perspectives. He defined, "Personality is a dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to his environment."

The supporters of the social determinants approach analyse a personality as per the status of the individual in their social group or community and consider the individual's conception of their role in the group is like. The key factor that this approach weighs in is what others perceive us as plays a greater role in the formation of our personality.

All modern communication tools including social media play a great role in the development of personality. Social media has been playing a very commanding role to influence the masses around the globe. Hence, anyone's personality is majorly persuaded by the social lives they lea. Through socialization process, one encounters a plethora of other individuals which some way or the other leave a mark on our personalities. The process starts as soon as we step into the real world from the playschool we go to peers and friends, amongst others. In this way, our social life is one of the essential determinants of personality and that's why we are always advised to choose our social circle wisely

Social environment of home, school environment, peers and teachers are the strong social determinants of personality. Nobody can deny that personality of an individual develops with constant interaction between biological genetic factors and social environmental forces. First after its birth, a child comes in to contact of its parents, siblings and family members. So, the type of training and experiences of a child in early childhood shapes greatly the behaviour in later life also.

The most significant period of life span is the formative period of an individual and it is spent by all in the school, colleges between the ages of 4 to 21 years. Here the teachers' behaviour and peer group or classmates greatly influence in child's development of personality. School as a social determinant must give emphasis on teacher's behaviour. The methods, means and ways of dealing with students in school environment greatly affect the emotional climate of the classroom. Accordingly, role of teachers are to be kept in mind as follows-

(i) Teachers should apply fair and democratic method treating everyone equally.

(ii) They should be enthusiastic, open minded

(iii) Teachers should encourage students' participation

(iv) Attitude towards teaching should be very positive so that their positive attitude towards teaching can create a warm and friendly atmosphere in the classroom.

(v) Sympathy towards students and inter-personal relations between students and teachers influence a lot in determining the personality behaviour of children.

Check your Progress:

Q.1 Discuss the role heredity on personality development.

Q.2. Describe briefly the social determinants of personality.

Q.3. How does a teacher influence on personality development in school.

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4.5 Role of Culture on Personality Development

The term *culture* refers to a complex whole of all knowledge, beliefs, customs, ideas, behaviors, and traditions of a particular society that are passed through generations. Culture is transmitted to people through language as well as through the modeling of behavior and it defines which traits and behaviours are acceptable, important, desirable, or undesirable. In all over the world, there is a common characteristic that each culture trains and expects its members to behave and breathe in a way that is acceptable by society. Culture is referred as one of the most important environmental factors shaping their personality (Triandis & Suh, 2002). Many psychologists are interested in understanding the role of culture in the development of personality. Research investigating the variations of personality traits across cultures suggests that there are both universal and culture-specific aspects that account for these variations.

It is a social fact that within one culture there are different norms and behavioral expectations. These cultural norms can dictate which personality traits are considered important. The researcher Gordon Allport considered culture to be an important factor that influences on traits and defined common traits as a part of culture. These traits may vary from culture to culture based on differing values, needs, and beliefs. Positive and negative traits of a person can be determined by cultural expectations like what is considered a positive trait in one culture may be considered negative in another, thus resulting in different expressions of personality across cultures.

Each civilization transmits its ideals, values, and approved behaviours to its offspring, both consciously and unconsciously. Social institutions such as the home, school, and temple, or their equivalents, are mostly responsible for this education. As a result, systematic training, together with the examples set by adults or other "models," tends to produce some degree of consistency and establish what might be referred to as the basic personality type of a given culture. Considering this, cultural influence on personality is important. As for example, Western ideas and theories are not necessarily applicable to other cultures of South East Asia's nations. (Benet-Martinez & Oishi, 2008). There is a great deal of evidence that the strength of personality

traits varies across cultures, and this is especially true when comparing individualist cultures (such as European, North American, and Australian cultures) and collectivist cultures (such as Asian, African, and South American cultures). People who live in *individualist cultures* tend to believe that independence, competition, and personal achievement are important. In contrast, people who live in *collectivist cultures* tend to value social harmony, respectfulness, and group needs over individual needs. These values influence personality in different but substantial ways; for example, Yang (2006) found that people in individualist cultures displayed more personally-oriented personality traits, whereas people in collectivist cultures displayed more socially-oriented personality traits.

Check your progress:

Q.1. Discuss the role of culture in promotion of personality behaviour.

Q.2. Elaborate on the various determinants of personality.

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4.6 Summing Up:

- In this unit, we have discussed on Genetic factors on Personality development, Social Factors that influence on Personality Development and also discussed Culture as a strong Determinant of Personality.
- Heredity provides the basic raw materials of personality development like physical appearance, intelligence and temperament.
- Social environment of home, school environment, peers and teachers are the strong social determinants of personality including the modern tools of communication- social media.
- Personality traits vary culture to culture based on every society's differing values, needs, and beliefs. Positive and negative traits of a person can be determined by cultural expectations like what is considered a positive trait in one culture may be considered negative in another.

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BLOCK V:
LEARNING DISABILITIES AND LEARNER'S NEEDS

Unit 1 : Learning Disabilities

Unit 2 : Causes of Learning Disabilities

Unit 3 : Educational Provisions for Learning Disabilities

Unit 4 : Specialised Approaches and Techniques of teaching students with Learning Disabilities

Block V: Learning Disabilities and Learners Needs

**UNIT 1: MEANING AND DEFINITIONS, CHARACTERISTICS
OF LEARNING DISABLED STUDENTS**

Contents:
1.1 Introduction
1.2 Objectives
1.3 Concept of Learning Disability
1.4 Meaning of Learning Disability
1.5 Definitions of Learning Disability
1.6 Characteristics of Learning Disabled students
1.7 Summing Up
1.8 Questions and Exercises
1.9 References and Suggested Readings
1.10 Answers to check your progress

1.1Introduction:

The new born infant is an active organism who is genetically endowed at birth with biological intelligence, capable of adaptively interacting with the environment. The maturation of structural and functional changes within the body systems together with the effects of cumulative experience facilitates developmental progress. In the process of development, learning also takes place. Learning in formal situation takes place in the teaching-learning process where the child is given utmost importance.

Learning is knowledge got by study, by experience, or by teaching. When children fail to learn, they impair the capacity to profit from new experiences. They are not able to learn because something prevents them from doing something, may be internal or external cause. This is termed as LEARNING DISABILITY (LD).

It is very difficult to recognize the child with learning disability when it is too young. Once the child starts going to school, is participating in the teaching-learning process and other co-curricular activities, these learning disabilities show up and are recognized.

The phrase "Learning Disability" was coined in 1963 by SAMUEL KIRK while he was addressing a group of parents at the conference on exploration into the problems of the perceptually handicapped children. He used the phrase learning disability to refer to children who were hyperactive and who had reading difficulty or disorders of language. This was an attempt to diagnose children simply and behaviorally. It was also beginning of the learning disability movement which was to bring about considerable social, educational, economic and legislative changes.

1.2 Objectives:

After going through this unit you will be able to:

- understand the concept of learning disability
- know the meaning of learning disability
- define the term learning disability
- analyze various characteristics of learning disabled students

1.3 Concept of Learning Disability:

The concept of Learning Disability is a complex phenomenon. It is not only complex but mysterious to. No area of special education has experienced much rapid growth, extreme interest and frantic activity as learning disability. This statement is as true as it was a decade ago. The number of children identified as learning disabled has increased greatly in recent years making this category the largest in special education.

Learning disability, more than any area of special education seems to create misunderstanding and controversy. There is considerable confusion and disagreement not just on the part of general public but among professionals and parents as well, on such basic questions as what is learning disability. There is no satisfactory answer till today.

The history of learning disability can be traced back to the work of Straus and Lehtinen who wrote a book titled "Psychopathology of the Brain Injured Child", in 1947. The official beginning of the learning disability movement was started in 1963 when Dr. Samuel Kirk delivered an address to a group of parents to form the association for children with learning disability. The field of learning disability developed in United States during 1960's and 1970's.

The field currently called 'Learning Disability' includes notions of brain damage, hyper activity, mild form of retardation, socio-emotional maladjustment, language difficulty, subtle form of deafness, reading disorder and almost the entire field of special education. This has lead to a number of problems in choosing a suitable term. There is large number of terms used to describe the same kind of disorder. Different persons, for the same kind of problem, use different terms at different places. It has made the area more complex and confusing. Use of different terms does not indicate any clear-cut direction regarding its meaning, definition, identification, procedure, educational provisions and the like. Edward Fry has given as terminology generator table, which generates more than one thousand terms, which are more or less in use to describe a kind of learning disorder similar to the phrase learning disability. It indicates the degree of complexity involved in the field of learning disability.

Stop to Consider

The phrase "Learning Disability" was coined in 1963 by SAMUEL KIRK while he was addressing a group of parents at the conference on exploration into the problems of the perceptually handicapped children. He used the phrase learning disability to refer to children who were hyperactive and who had reading difficulty or disorders of language. This was an attempt to diagnose children simply and behaviorally.

1.4 Meaning of Learning Disability:

Historically the concept of a learning disability was narrowly defined but in recent years physicians psychologists and educators have been increasingly likely to describe any academic difficulty as a learning disability. When the teacher observes that a pupil is consistently unable to keep up with classroom assignments she refers to difficulty such as "Unable to progress in mathematic even though his work in all order areas is average" or "does average work in reading and other subjects but consistently fails in spelling," where he cannot differentiate such words as lake and like. The problem often centers on a marked lack of attainment in a particular area in the face of average achievement in other areas to indications of at least average intellectual ability. This lack of attainment in a particular area is termed as **learning disability**.

1.5 Definitions of Learning Disability:

Samuel Kirk first defined a learning disability as a disorder or a retardation of development affecting specific academic area, such as reading, spelling, arithmetic and writing as well as delays in language in general.

Bateman (1964) later offered a definition that advanced a quantitative basis for defining the concept of learning disabilities. A child was considered learning disabled when he or she exhibited "An educationally significant discrepancy between their estimated intellectual potential and the actual level of performance related to basic disorders in the learning process". Bateman's definition added a method of discriminating learning disabled from normal children.

CLEMENTS (1966): The level of the intellectual potential that must be present in order that the underachievement be labeled as a disability – near average, average, or above average general intelligence with certain learning or behavioural disabilities ranging from mild to severe.

Many school systems have adopted the Bateman and Clements criteria for selecting children for Special Education classes in learning disability. The IQ scores of the learning disabled children are two years or 2 grade levels below the expected level based on IQ.

Since the 1980s the broad definition of Learning disability formulated by the US National Joint Committee on LD (NJCLD, 1981/1988) with representation from all concerned disciplines has been widely used. It reads as follows:

Learning disability is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction and may occur across the life span. Problems in self-regulatory behaviors, social perception and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Although learning disabilities may occur concomitantly with other handicapping conditions (for example sensory impairment, mental retardation, serious emotional disturbance) or with extrinsic influences such as cultural differences, insufficient or inappropriate instruction, they are not the result of these conditions or influences (Wrong, 1996).

This broad definition reflects a graduals shift from the traditional categorical approach which broadly characterized children with learning disability into those with 'specific reading retardation' and those with 'general reading backwardness' to a newer (1990s) dimensional approach of individual differences in reading achievement. This latter approach has been increasingly adopted by most researchers but has yet to be adopted by practitioners.

The Federal Government of the USA has defined learning disability in Public Law 94-142 (Education for All Handicapped Children Act) as follows:

Specific learning disability means a disorder in one or more of basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself as an imperfect ability to listen, think, speak, read, write, spell or to do mathematical calculations. The term includes such conditions as perceptual handicap, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The phrase does not include children who have learning problems which are primarily the result of visual, hearing or motor handicaps, of mental retardation, of emotional disturbances or of environmental, cultural or economic disadvantages (Education for All Handicapped Children Act, 1975).

Nevertheless, there is no universally accepted definition of learning disability, because the criteria for diagnosis of individual's disorders varied from time to time.

1. What do you understand by the term " Learning Disability"

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2. Write any two definitions of Learning Disability

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1.6 Characteristics of Learning Disabled students:

The following is a list of common characteristics of a Learning Disabled student. Conditions must be persistent over a long period of time. Presence of these conditions does not necessarily mean a person is learning disabled.

Reading Skills:

➢ Poor decoding skills
➢ Poor reading fluency
➢ Slow reading rate
➢ Lack of self-monitoring reading skills
➢ Poor comprehension and/or retention
➢ Difficulty identifying important ideas in context
➢ Extreme difficulty building ideas and images
➢ Difficulty integrating new ideas to existing knowledge
➢ Weak vocabulary skills
➢ Extreme difficulty understanding words or grammar
➢ Difficulty recognizing high frequency words
➢ Oral comprehension is noticeably stronger than reading comprehension
➢ Extreme difficulty focusing attention on the printed marks
➢ Difficulty controlling eye movements across the page
➢ Wavy or shimmering pages not attributable to poor vision

Spelling Skills:

➢ Phonological awareness is noticeably stronger than spelling ability
➢ Frequent spelling errors of high frequency words
➢ Extreme difficulty with homonyms and/or regular spelling patterns
➢ No understanding of the relationship of phonics to written language
➢ No understanding of common spelling rules
➢ Inadequate understanding of phonics even with instruction

Written Expression Skills:

➢ Poor writing fluency

- Unable to compose complete, grammatical sentences
- Difficulty organizing written information
- Poor handwriting
- Extremely poor alignment
- Inability to take notes or copy information from a book or the board
- Oral expression is noticeably stronger than written expression
- Extremely weak proof reading skills

Oral Language Skills:

- Inability to hear small differences between sounds, not attributable to a hearing loss, particularly vowel sounds
- Difficulty articulating thoughts or ideas orally
- Difficulty pronouncing words
- Inability to blend sounds together to form words
- Difficulty listening and responding to a series of directions
- Disorganized recall of facts or details

Mathematical Skills:

- Poor mathematical fluency
- Difficulty memorizing multiplication tables
- Difficulty identifying multiples and/or factors
- Poor basic calculation skills
- Difficulty understanding word or application problems
- Poor understanding of mathematical concepts
- Difficulty sorting out irrelevant information
- Lower visual perceptual and visual-spatial ability
- Inability to transfer basic mathematical concepts to solve problems with unpredictable information
- Inability to use basic facts within more complex calculations

Memory Skills:

- Extremely weak ability to store and retrieve information efficiently
- Extremely weak ability to hold information for immediate use

Reasoning Skills:

- Extremely weak ability to solve problems, particularly when information or procedure is unfamiliar
- Extreme difficulty recognizing, transforming, or using specific information to reach general conclusions

Check Your Progress

3. What are the various skills where we see Learning Disability?

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1.7 Summing Up:

"Learning Disability" was coined in 1963 by SAMUEL KIRK while he was addressing a group of parents at the conference on exploration into the problems of the perceptually handicapped children. He used the phrase learning disability to refer to children who were hyperactive and who had reading difficulty or disorders of language. This was an attempt to diagnose children simply and behaviorally.

Learning disability includes notions of brain damage, hyper activity, mild form of retardation, socio-emotional maladjustment, language difficulty, subtle form of deafness, reading disorder and almost the entire field of special education. This has lead to a number of problems in choosing a suitable term. There is large number of terms used to describe the same kind of disorder. Different persons, for the same kind of problem, use different terms at different places. It has made the area more complex and confusing. Use of different terms does not indicate any clear-cut direction regarding its meaning, definition, identification, procedure, educational provisions and the like. However, in the next unit we shall discuss the causes of learning disability, how to identify learning disable students and what the different types of learning disabilities are.

1.8 Questions and Exercises:
1. What do you mean by the term learning disability? How the Federal Government of the USA has defined learning disability in Public Law 94-142?
2. What are the characteristics of learning disable students? State with suitable examples.

1.9 References and Suggested Readings:

1) **Lerner,J**.(2002) Learning Disabilities,(8th ed)Boston: Houghton Mifflin.
2) **Mangal, S.K**.(1981) " Abnormal Psychology" Sterling Publishers, New Delhi.
3) **Panda.K.C.** (2006) Education of Exceptional Children, Vikas Publishing House Pvt Ltd, New Delhi, 110014
4) **Rao.A.A.** (2010) Learning Disabilities, Nilkamal Publications Pvt Ltd, Hyderabad-500 095.
5) **Umadevi, M.R.** (2010) Special Education, Nilkamal Publications Pvt Ltd, Hyderabad-500 095.

1.10   Answers to check your progress:
1. Any academic difficulty is to be considered as learning disability. For example: when the teacher observes that a pupil is consistently unable to keep up with classroom assignments she refers to difficulty such as "Unable to progress in mathematic even though his work in all order areas is average" or "does average work in reading and

other subjects but consistently fails in spelling," where he cannot differentiate such words as lake and like. The problem often centers on a marked lack of attainment in a particular area in the face of average achievement in other areas to indications of at least average intellectual ability. This lack of attainment in a particular area is termed as **learning disability**.

2. (i) Samuel Kirk first defined a learning disability as a disorder or a retardation of development affecting specific academic area, such as reading, spelling, arithmetic and writing as well as delays in language in general.

   (ii) According to Bateman learning disability can be defined in the following ways. A child was considered learning disabled when he or she exhibited "An educationally significant discrepancy between their estimated intellectual potential and the actual level of performance related to basic disorders in the learning process".

3. The various skills where we can see learning disability are as follows:
   - Reading Skills
   - spelling Skills
   - written expression skills
   - oral language skills,
   - mathematical skills
   - memory skill and reasoning skill.

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BLOCK V: LEARNING DISABILITIES AND LEARNERS NEEDS

UNIT 2: CAUSES, IDENTIFICATION AND TYPES OF LEARNING DISABILITIES

Contents:
2.1 Introduction
2.2 Objectives
2.3 Causes of Learning Disability
2.4 Identification of Learning Disability
2.5 Types of Learning Disability
2.6 Summing Up
2.7 Questions and Exercises
2.8 References and Suggested Readings
2.9 Answers to check your progress

2.1 Introduction:

Learning which brings changes in the modification of human behavior through experience, or by teaching. When children fail to learn, they impair the capacity to profit from new experiences. They are not able to learn because something prevents them from doing something, may be internal or external cause. This is termed as LEARNING DISABILITY (LD). However, in the previous unit we have understood the concept, meaning and various characteristics of learning disabilities. This unit is also very interesting for us. Because you are now quite curious to know why learning disabilities seen among children, what are different causes, how can we identify them and what type of learning disabilities there are? So keeping in mind all this questions, we shall go through this unit and find out all solutions too.

2.2 Objectives:

After going through this unit you will be able to
- Understand the causes of learning disabilities.
- Identify learning disable students.
- Know various types of learning disabilities.

2.3 Causes of Learning Disability:

Literature cities many different causes related to a learning disability – organic, biological, genetic and environmental – but their roles remain ambiguous and tentative. LD is a broad term that covers a pool of possible causes, symptoms, treatments and outcome. Because of this it is difficult to diagnose or to pinpoint the causes.

- **Neurological Damage:**

Children with learning disability share several characteristics found in persons with brain damage caused by injury or infection.

'*Strauss* and *Werner*' studied brain-injured person (for e.g. soldiers having head injuries) and found similarities between them and children with learning disabilities. Some of these behaviors were impulsivity, distractibility, figure-ground disturbances, visual-motor disorders and thinking and conceptual disorders.

Neurological damage can also occur during the prenatal, natal and post-natal periods, resulting in learning disability. Factors such as prolonged labour, premature birth, birth complication, maternal age, use of drugs and alcohol, maternal-foetal blood incompatibility, maternal endocrine disorder, Rh – factor, cigarette smoking and low birth weight are some of the other variables studied.

- **Maturational Delay:**

Another theory to explain learning disability suggests that it occurs because they're a maturational delay rather than a permanent dysfunction within the neurological system. Bender (1973) observed that if differential stages in the development of the brain are delayed, there occurs a maturational lag. Some typical symptoms he mentioned were:

- Slow maturation of language skills, specially reading
- Delayed development of motor skills
- Uneven performance Patterns on measures of intellectual development.
- Visual motor problems.
- Incomplete or mixed dominance.
- Right-left confusion.
- Immaturity (more often seen in males)
- Tendency of numbers within a family to show similar symptoms.

A fair amount of research supports Bender's views that maturational delay is associated with learning disability.

De Hirsch and *Langford (1996)* described language difficulty of reading; writing and spelling as developmental disturbances reflecting an immature nervous system.

- **Genetic Factors:**

The exact nature of the relationship between genetic and learning disability remains obscure but evidence does suggest that members within a family have a tendency towards learning disability.

Hallgrew (1950) found that 88 percent of the families of dyslexic children showed similar learning problems. *Herman* (1959) examined dyslexia in twins and reported that of the twelve sets of identical (monozygotic) twins, all members were dyslexics. But when the

study was conducted with thirty-three pairs of fraternal (dizygotic) twins, only one third showed both members as being dyslexic and two thirds had only one dyslexic member. Therefore more research is needed in this area to prove a differential relationship between learning disability and genetic patterns.

- **Biochemical Factors:**

Chemicals play an important role in brain actuary, controlling and releasing electrical nerve impulses between neurons. Absence or even excessive amounts of biochemical

For example, a delicate balance acetylcholine and cholinesterase is needed for neural transmission. Metabolic disorders of bioorganic amines such as sectioning and dopamine have been of particular interest to researchers. There appears to be some relationship between these chemicals and hyperactivity (frequently associated with learning disability).

Remediation generally takes the form of drugs such as retalin, Dexedrine, cylert to be taken under the advice of a physician. Some side effects (loss of appetite, irritability, lack of sleep and headaches) are known to occur and careful monitoring of the dosage is very important.

- **Nutritional Deficiencies:**

The developing child requires adequate nutrition, especially in the first six months. A poor diet and severe malnutrition can reduce the child's ability to learn by damaging inter-sensory ability and delaying development.

Cott (1972) linked nutritional deprivation to poor biochemical functioning in the brain and suggested a form of treatment called megavitamin or orthomolecular therapy.

- **Megavitamin or Orthomolecular Therapy:**

It is the treatment, which entails daily doses of vitamins and other trace minerals, remains controversial but the principle of maintaining a well-balanced diet is sound and pertinent.

Though teachers cannot be responsible for their student's diets, they can request parents to improve their child's nutritional needs. Pregnant mothers too must understand the role of nutrition in determining the development of the fetus.

- **Environmental Factor:**

There are several facts in the child's environment which may result in a learning disability. In economically deprived homes, the child may not be exposed to adequate sensory, linguistic activities.

For example, if a child is never given the opportunity to go to school, this would obviously result in the absence of basic academic skill an emotionally instable home life may deprive the child of any motivation to learn.

Some researches (Bruner, 1971) believe that poor quality of teaching in schools can also cause a learning disability. Very often teachers themselves are not equipped to teach a particular subject. A poor teaching style not giving the learner enough time to acquire basic

skills, moving too fast and failure to understand how best a child learns can result in learning difficulties of the kind.

So far as we got to know various causes of learning disabilities. Now we shall see how to identify learning disable students. What are the basic symptoms do they poses? Let's see.

Stop to Consider:

There are various types of causes of learning disabilities which seem among students. The causes of learning disabilities are neurological damage, maturational delay, genetic factors, biochemical factors, nutritional deficiencies and environmental factor.

2.4 Identification of Learning Disability:

Individuals are assessed usually are learning disabled after they start having problems in school. A variety of tests are administered even after certain tell-tale signs. The three indicators of LD have to be identified:

- Discrepancy between ability and achievement.
- Low achievement.
- Scattered assessment profile indicating variable performance in different areas.

There are certain behavioural indices of learning disabilities in children:

- Near average, average or above average in intellectual ability.
- Impulsive behaviour in talk and action.
- Inability to focus on one activity.
- Easily distractible.
- Inability to shift from one activity to another.
- Easy onset of fatigue.
- Wrong or inappropriate perception.
- Reversal in writing and reading and transposition.
- Problems of left and right, up and down orientation.
- Difficulty in understanding and remembering oral message.
- Difficulty in interpretation and remembering visual image.
- Language and organization difficulties.
- Trial and error approach to work.
- Thinking problem relation to abstract ideas and concept.
- Poor fine motor coordination.
- Clumsiness in thinking.
- Hyperactivity (easily stimulated).
- Hypo activity (late action with much stimulation).
- Omits, adds, substracts, reverses letters in words.
- Skips line while reading.
- Dos not build letters B-A-T not BAT.

- Unable to follow verbal direction.
- Reverses numbers 6, 9; 36, 63; 14, 41.
- Gets confused with arithmetic signs >, <, -, + …
- Does not know carry over.
- Get easily disturbed.
- Appears to be muddy.
- Appears to be forgetful.

Easily identification of such difficulties is important even from pre-school period so that remedial education can be provided. In fact, the sooner the high risk children are recognized the greater is the chance of prevention failure.

Check Your Progress:

1. Write any two causes of learning disability?

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2. Write any five behavioural indices we see among learning disable students?

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As per the above discussion we have seen there are various causes of learning disabilities. Also we came to know how learning disable students can be identified. Now we shall study various types of learning disability.

2.5 Types of Learning Disability:

The Learning –disabled children constitute a heterogeneous group. Some LD children have reading problems and some others have writing problems. Some LD children have problems of comprehension whereas other have may have problems in telling the time, locating a place on the map. Thus, it is difficult to mention the characteristics, which are noticed in all LD children. The most frequently mentioned characteristics of LD children include the following:

- **Ability Level:**

The ability level of LD children varies from near average to average to above average.

- **Disorders of Attention and Hyperactivity:**

Attention is the ability to concentrate on a task long enough to grasp its essential features. Short attention span and lack of concentration have been found to be the most

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obvious qualities in learning disabled individuals, but this does not mean that all inattentive children are learning disabled. A child may have attention disorder for many reasons. He may have an

(i) Undetected hearing loss or poor eyesight so that at he tunes out when the teacher is teaching.
(ii) Depression
(iii) Anxiety
(iv) Emotional problems or stress can lead to problems of concentration

Studies confirm that learning-disabled persons are considerably inferior in selective attention (cannot select the relevant details) and they cannot sustain attention, or maintain attention till the task completed.

- **Hyperactivity:**

The other term one find frequently associated with Learning disability is Hyperactivity.

Psychiatrists refer to hyperactivity as 'Attention Deficit Hyperactive Disorder' (ADHD). Hyperactivity is a much-misunderstood term and is widely misused. Generally speaking, when a teacher says "he is inattentive" or "she is hyperactive" the term is being loosely applied to almost any off task behavior.

When teachers have been asked to explain what they understand by the term hyperactive they vaguely indicate, "He cannot sit in one place"; "He is always talking when I am writing on the blackboard"; "He is impulsive and answers without thinking".

There is a difference between being impulsive and hyperactive. They do not mean the same thing. Not all who respond impulsively are hyperactive and impulsivity does not always result in an incorrect response.

Blackman and Gold stein (1982) suggested that when the learner does not know how to respond to incoming stimuli, he produces an incorrect response by either ignoring the relevant features of the task (impulsivity) or responds with excessive activity (hyperactivity).

The impulsive learner chooses the very first action he thinks will solve the problem, without taking time to analyze all the attributes of the task. This leads him to go on to the next action, thus producing hyperactive behavior. It is also possible to respond quickly and accurately.

- **Hyperactivity or Hyperkinesias:**

This has been considered as synonymous with learning disability for a very long time, although the relationship between the two is still not clearly substantiated.

Ross states many children are hyperactive without being learning disabled; some learning-disabled children are also hyperactive. The relationship between the two conditions is not at all clear.

For a child to be diagnosed as hyperactive, he or she must exhibit at least some of the specified behaviors more often than children of the same age. The symptoms must be present for at least six months and start before seven years of age, even though ADHD is often not diagnosed until a child is eight or older.

Some specified behaviors of a hyperactive child.

1. Constant motor activity
2. Restless
3. Tapping of finger or foot
4. Jumping out of seat
5. Skipping from task to task
6. Easily distracted by extraneous stimuli
7. Has difficulty playing quietly
8. Often talks excessively
9. Often interrupts or intrudes on others
10. Often does not seem to listen to what is being said

- **Motor Problems:**

The LD children are generally clumsy or awkward with poor and gross motor coordination. They demonstrate poor tactile discrimination, excessive need to touch; poor writing and drawing performance.

- **Visual Perceptual Problems:**

The brain incorrectly translates incoming light waves Educators generally describe visual perception as the process by which visual stimuli is made meaningful to the observer.

The LD children are unable to distinguish between visual stimuli (visual discrimination): they are unable to perceive a figure against a background (visual figure ground). They are unable to fill in missing parts when only part of a word or object is seen (visual closure); they are also unable to remember and re-visualize images or sequences very well (visual memory).

Perceptual problems are of several different kinds Visual perception involves a set of sub-skills, briefly mentioned as follows.

a) Figure-Ground Discrimination:

This is the ability to concentrate on what is relevant and ignore what is irrelevant; for example, in a painting in the child will be able to attend to salient features and not get confused. But a child who is inattentive an easily distracted will find it difficult to focus on relevant objects in the picture.

b) Spatial Relationship:

Orientation in space means being able to see things from another's perspective and take a visual viewpoint that is different from one's own. Concepts of left /right, under/above are needed to perform most tasks.

For e.g. copying a pattern, or words in a sentence, or solving addition and subtraction sums, all involve attention to directionality.

c) Visual- Motor Integration:

It was *Newell kephart* (1977) who introduced programmers based on the relationship between perception and physical movement. According to Kephart, perceptual and motor learning go side by side; for e.g. when a child traces a line, he alters the movement and direction of his hand in response to feed back from visual information. He believed that basic skills-eye hands coordination, temporal-spatial integration and form perception must be taught in their natural order of development.

Children who are weak in this area will demonstrate difficulty in buttoning, lacing, cutting, pasting, writing and also copying from the blackboard. The shape, size and position of objects will confuse them.

According to Kephart, children must be taught motor patterns and not splinter (isolated) skills and his training programme emphasizes exercise to bring about this perceptual motor match.

Auditory Perceptual Problems:

The LD children are unable to distinguish between sounds (auditory discrimination); they are unable to attend to important auditory stimuli by pushing all other auditory stimuli into the background (auditory figure ground). They are unable to fill in missing sounds when only a part of the word is heard (auditory closure). They are also unable to remember auditory stimuli or sequences very well (auditory memory). The brain incorrectly translates incoming sound waves.

The following sub-skills are a good sampling of what is generally included as components of auditory perception.

a) Auditory Discrimination:

Auditory Discrimination is the ability to hear similarities and differences between two or more sounds. Most tests include a section for Auditory Discrimination and usually involve asking the child if he can indicate which words sound the same and different.

b) Auditory blending:

Auditory blending is a skill specially require for reading. It is the ability to blend or combine sounds to form words. Most dyslexic readers tend to read in a disjointed manner and have difficulty with blends (bl, sp) and digraphs (ch, gh, th).

c) Auditory memory:

This is the ability to recall sounds and make sense of what is heard. Most learning-disabled persons have difficulty in recalling the correct sequence of letters in a word or words in a sentence.

- **Heptic Perception:**

Heptic perception is the process by which information is acquired though the tactile (sense of touch) and kinesthetic (movement) system. A child explores the world around him by touching and manipulating objects and absorbing information pertaining to texture, pain, temperature, pressure and geometric feature. However some learning-disabled children may be unable to derive meaning from touching.

For example, the quality of roundness in a circle and concept related to hard/soft, rough/ smooth or hot/ warm may not be acquired easily; they may also have problems with kinesthesia, which includes bodily movement, coordination, body image, direction and spatial orientation. A child may be unable to write because he does not know how to move his hand and he cannot produce the up/down strokes required for writing.

- **Memory Disorders:**

Persons with learning disability are generally characterized by inefficient memory system. This means that they are unable to spontaneously use rehearsal strategies, recode information in a meaningful way or reorganize information. Early research suggested this occurred because they could not retrieve stored information efficiently. More recent theories focus on the inability to impose structure on information, which is a key factor in memory. It is still not clear whether; memory disorders are due to inefficient rehearsal strategies, poor cognitive development or biochemical differences. While it is difficult to pinpoint exactly where the breakdown is taking place, the following characteristics are clearly observed I most learning disabled persons

- LD students find it difficult to recall visual material, specially the written word.
- LD students are unable to spontaneously use strategies foe verbal rehearsal.
- LD students are poor at task requiring auditory discrimination.

- **Disorder of Spoken Language:**

The LD children demonstrate delayed or slow development of speech articulation and an inability to organize words to form phrases, clauses or sentences

- Reliance on simple sentence constructions.
- Incorrect use of a word given in its context.
- Problems with tense, pronouns, possessives and negatives.
- Omission of words and word ending.
- Insertion of extra words or word parts in their sentences.
- Fragmentation of spoken language
- Awkward organization of spoken language.
- Articulation difficulties.
- Difficulty in retrieving words during conversation, often with attempted cover up through stalling or insertions.

The speech of learning-disabled students appears to be very limited in structure and usually contains "fillers" such as "uh…uh… I mean."

- **Social Emotional Behavior Problems:**

The LD children are impulsive in nature. They fail to think about consequences of their behavior. At times they exhibit explosive behavior. They display range reactions or throw tantrums when crossed. They lack social competence. Their social competence is often below the average for their age and ability. They are unable to adjust to changes. They exhibit rapid mood variation even from hour to hour.

- **Orientation Problems:**

The LD children posses poorly developed concept of space and a distorted body image. They have difficulty in judging distance and size and in discriminating figure from ground, parts from the whole and left from right. They are disoriented in the time and experience trouble relating to concepts like before and after now and then and today and tomorrow.

- **Work Habits:**

The LD children organize work poorly. They work slowly and frequently, confuse directions or rush through work carelessly.

Check Your Progress:
3. Write any four types of specific behaviors of a hyperactive child?
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4. State the characteristic of LD children having socio-emotional behavioural problem.

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- **Academic Disabilities:**

There is little doubt that in the area of academic learning children with a learning disability are low achievers. They have problem in the specific areas of reading, writing and mathematics although it is not necessary that a child poor in spellings will also be poor in mathematics. Difficulties related to schoolwork may appear as early as kindergarten and continue into adolescence and adulthood.

Academic disorders are usually the first to be noticed by parents and educators because it affects the child's achievement in school. The LD children have problems in reading, arithmetic, writing, spelling, telling time and even locating places on map.

a) **Disorders of reading (Dyslexia):**

Learning disability has come to be synonymous with reading disorder to the extent that many people use the term dyslexia to represent all kinds of learning disability. The inability to read is probably the first indication that there is something wrong with the child. A dyslexic child will read slowly often reversing letters, words or numbers; the child may try to guess while reading, omitting or adding words not in the text. He may have a poor vocabulary and weak comprehension. Research has documented that the dyslexic reader fails to perceive and analyze distinctive features automatically, overlooks the sequential features of a story, which affects comprehension and focuses less on meaning.

b) **Disorders of writing (Dysgraphia):**

Since what we are dealing with is a language disorder, the area of written expression is also affected. Some typical characteristics are:

- ❖ The total numbers of words and length of sentences is reduced.
- ❖ There are errors in spelling, syntax, tense and punctuation.
- ❖ The child is unable to deal with abstract themes and ideas.

c) **Disorder of mathematical learning (Dyscalculia):**

Much less research has been done in the area of mathematical disorders and most of the research focuses on the younger elementary level students. However, most learning-disabled students have problems in this area. In the primary classes, they may be unable to associate numbers with quantity or discriminate between right and left. There is a tendency to reverse numbers and confuse before and after. Spatial orientation and ability to make

estimations of space, size, time, shape and weight tends to be poor. LD students tend to work on a concrete level and are slow to acquire abstract reasoning skills which are very necessary for problem solving in the higher classes.

d)   Disorder of listening:

Listening is a complex process, which involves attention to sound-discriminations between sounds to gather relevant features of what is being said, participation in the communication process and storage of what was heard for future retrieval. Obviously listening requires good attention, discrimination and memory system. Some LD students may find it difficult to make sense of what is being said to them. They find it difficult to follow direction or sequence of events in stories and conversation. A learning disability in the auditory area show itself in the following ways.

❖ The person cannot recognize words having multiple meaning or words used in different contexts.
❖ He cannot understand figurative language, idioms, words with multiple meaning etc.
❖ He has difficulty understanding sarcasm, humour and play on words.

However, in the end of the discussion let us have a look on the common types of learning disabilities seen among children.

Common Types of Learning disabilities

Dyslexia	Difficulty processing language	Problems reading, writing, spelling, speaking
Dyscalculia	Difficulty with math	Problems doing math problems, understanding time, using money
Dysgraphia	Difficulty with writing	Problems with handwriting, spelling, organizing ideas
Dyspraxia(Sensory Integration Disorder)	Difficulty with fine motor skills	Problems with hand-eye coordination, balance, manual dexterity
Auditory Processing Disorder	Difficulty hearing differences between sounds	Problems with reading, comprehension, language
Visual Processing Disorder	Difficulty interpreting visual information	Problems with reading, math, maps, charts, symbols, picture

The above table reflects the common types of learning disabilities, its difficulties and the problems faced by children having such disability.

2.6 Summing Up:

As we have studied there are various types of causes of learning disabilities which seem among students. The causes of learning disabilities are neurological damage, maturational delay, genetic factors, biochemical factors, nutritional deficiencies and environmental factor.
Individuals are assessed usually are learning disabled after they start having problems in school. A variety of tests are administered even after certain tell-tale signs. The three indicators of LD have to be identified:

- Discrepancy between ability and achievement.
- Low achievement.
- Scattered assessment profile indicating variable performance in different areas.

The Learning –disabled children constitute a heterogeneous group. Some LD children have reading problems and some others have writing problems. Some LD children have problems of comprehension whereas other have may have problems in telling the time, locating a place on the map. Thus, it is difficult to mention the characteristics, which are noticed in all LD children. However, the most frequently mentioned characteristics of LD children are as follows:

Ability level of the children, Disorders of attention and Hyperactivity, Hyperactivity or Hyperkinesias, Motor Problems, Auditory Perceptual Problems, Heptic Perception, Memory Disorders, Disorder of Spoken Language, Social Emotional Behavior Problems, Orientation Problems, Work Habits and Academic Disabilities.

Academic disorders are usually the first to be noticed by parents and educators because it affects the child's achievement in school. The LD children have problems in reading, arithmetic, writing, spelling, telling time and even locating places on map.

2.7 Questions and Exercises:
1. What are the various causes of learning disability? Can these be prevented?
2. What are the various identification procedure for LD children?
3. Discuss different types of learning disability.

2.8 References and Suggested Readings:

- **Lerner,J**.(2002) Learning Disabilities,(8th ed)Boston: Houghton Mifflin.
- **Mangal, S.K**.(1981) " Abnormal Psychology" Sterling Publishers, New Delhi.
- **Panda.K.C.** (2006) Education of Exceptional Children, Vikas Publishing House Pvt Ltd, New Delhi, 110014
- **Rao.A.A.** (2010) Learning Disabilities, Nilkamal Publications Pvt Ltd, Hyderabad-500 095.

- **Umadevi, M.R.** (2010) Special Education, Nilkamal Publications Pvt Ltd, Hyderabad-500 095.

2.9 Answers to check your progress:

- Ans No.1: Neurological Damage and Maturational Delay.

- Ans No. 2: Easily distractible, Language and organization difficulties, Hyperactivity, Skips line while reading and gets confused with arithmetic signs >, <, -, + …

- Ans No.3: Constant motor activity, Jumping out of seat, often talks excessively and often does not seem to listen to what is being said.

- Ans No.4: The LD children are impulsive in nature. They fail to think about consequences of their behavior. At times they exhibit explosive behavior. They display range reactions or throw tantrums when crossed. They lack social competence. Their social competence is often below the average for their age and ability. They are unable to adjust to changes. They exhibit rapid mood variation even from hour to hour

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BLOCK V: LEARNING DISABILITIES AND LEARNERS NEEDS
UNIT 3: Educational Provisions for Learning Disabilities

Contents:

3.1 Introduction

3.2 Objectives

3.3 Educational provisions for Learning Disabilities

3.4 Summing Up

3.5 Questions and Exercises

3.6 References and Suggested Readings

3.1 Introduction:

As we know that learning disability includes notions of brain damage, hyper activity, mild form of retardation, socio-emotional maladjustment, language difficulty, subtle form of deafness, reading disorder and almost the entire field of special education. This has lead to a number of problems in choosing a suitable term. There is large number of terms used to describe the same kind of disorder. Different persons, for the same kind of problem, use different terms at different places. It has made the area more complex and confusing. Use of different terms does not indicate any clear-cut direction regarding its meaning, definition, identification, procedure, educational provisions and the like. However, in the previous units we have already studied the concept, characteristics, causes, identification and various types of learning disabilities. The present unit will give focus on various educational provisions for learning disabilities.

The educational provisions for children with a learning disability will help such children to improve and sometimes overcome their learning disability to a certain extent. First of all the child should be identified on whether he or she has a specific learning disability and the type of learning disability the child has, needs to be defined. The identification procedure and various types of learning disabilities we have studied. Now let us know the educational provisions for learning disable children.

3.2 Objectives:

After going through this unit you will be –

- Able to know various educational provisions for learning disabilities.

3.3 Educational provisions for Learning Disabilities:

In general educational provisions for Children with Learning Disabled include the following:

1. Provisions of Day school/ Specialized School: Learning Disabled children cannot be taught along with other students as they suffer from severe learning deficiencies. Hence, there should be the provision of day school or special schools or at least separate classes for them where they can be taught by through special methods on the same curriculum with greater care and attention.

2. Provisions of Special class in a Regular School: where LD children are given special instruction in a self contained classroom by special teacher as well as regular classroom teacher do assist in teaching subject matters. These children receive instruction on academic in these classes but for social activities etc. they are with general students.

3. Provision of Special Remedial and Educational Program: Here, first the learning difficulty is identified i.e. the type and amount of it. Accordingly, a special remedial and educational program may be then adapted to rectify it. For example- if the deficiency of the child is related to the neural disorder. We can follow remedial programs. Getman's Visuo-Motor program etc. or if their deficiency is related to psycho-linguistic ability, we can follow a program like Witmer's Psycho-Educational etc.

4. Improving the Existing Environmental Set-Up: Many of the learning disabled children are caused by the improper negative factors present in their physical, social and educational environment. The measures expected from the parents, members of the family, teachers, school authorities and society to improve the existing environmental set-up can be summarized as follows:

- Great care should be taken by the parents and teachers to pick-up proper methods of learning and Communication.
- Efforts should be made to provide proper facilities in the school according to the needs, interest and abilities of these children. Stress should be made both on theory as well as on the practical field.

- In case of severe learning disability, the child should be placed in a fulltime special learning setting under the guidance of specially trained teachers.
- The teachers should not lose patience as these children are essentially slow-learners and under-achievers. They should be accepted with all their weaknesses and deficiencies.
- With the help of men and material resources available, the learning disabled should be helped in overcoming their deficits in skills like memory, spelling, handwriting, verbal expressions and mathematical abilities etc.

Stop to Consider:

Educational provisions for Learning disable students—
- Day school/ Specialized School
- Special class in a Regular School
- Special Remedial and Educational Program
- Improving the Existing Environmental Set-Up

3.4 Summing Up:

Day school/ Specialized School, Special class in a Regular School, Special Remedial and Educational Program and Improving the Existing Environmental Set-Up are some of the educational provisions for learning disability. However, the existing environmental set-up is to be summarized as follows—

- Great care should be taken by the parents and teachers to pick-up proper methods of learning and Communication.
- Efforts should be made to provide proper facilities in the school according to the needs, interest and abilities of these children. Stress should be made both on theory as well as on the practical field.
- In case of severe learning disability, the child should be placed in a fulltime special learning setting under the guidance of specially trained teachers.
- The teachers should not lose patience as these children are essentially slow-learners and under-achievers. They should be accepted with all their weaknesses and deficiencies.

- With the help of men and material resources available, the learning disabled should be helped in overcoming their deficits in skills like memory, spelling, handwriting, verbal expressions and mathematical abilities etc.

3.5 Questions and Exercises:

1. Discuss different educational provisions for Learning Disable students?

2. How can you improve the existing environmental set-up for learning disable students?

3.6 References and Suggested Readings:

Lerner,J.(2002) Learning Disabilities,(8th ed)Boston: Houghton Mifflin.

Mangal, S.K.(1981) " Abnormal Psychology" Sterling Publishers, New Delhi.

Panda.K.C. (2006) Education of Exceptional Children, Vikas Publishing House Pvt Ltd, New Delhi, 110014

Rao.A.A. (2010) Learning Disabilities, Nilkamal Publications Pvt Ltd, Hyderabad-500 095.

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BLOCK V: LEARNING DISABILITIES AND LEARNERS NEEDS
UNIT 4: SPECIALIZED APPROACHES AND TECHNIQUES OF TEACHING STUDENTS WITH LEARNING DISABILITIES

Contents:

4.1   Introduction

Learning disability refers to a group of disorders relating to acquisition and use of listening, speaking, reading, writing, reasoning, mathematical abilities and social skills. Conservative estimates indicate three per cent of school children to be learning disabled. So far as in the previous unit you have studied various educational provisions for learning disability which consist of day school/ special school, special class in a regular school, special remedial and educational programme and provisions for improving the existing environmental set-up. In order to teach these children there are various types of specialised approaches and techniques of teaching which shall be adopted by a teacher to teach students with learning disability. In spite of different educational provisions there are certain general techniques of instruction for the children with learning disability. Basal reading, phonic approach, language experience approach, programmed instruction, multi-sensory approaches are used with differential effectiveness. Specific procedures are available for improvement of handwriting, spelling, writing, reading, arithmetic and these are outlined in detail in the text, including curricular concerns.

4.2   Objectives

After going through this unit you will be able to–

- know various specialized approaches and Techniques of Teaching Students with Learning Disabilities.
- know specialized approaches for teaching Students with Learning Disabilities.
- know various Teaching Approaches for teaching Students with Learning Disabilities.
- Use various general Instructional Techniques.

4.3 Specialized approaches and Techniques of Teaching Students with Learning Disabilities:

There are various types of specialized approaches to teach students with learning disabilities. They are as follows.

4.3.1 Specialized approaches for teaching Students with Learning Disabilities:

i. **Behavioural Approach:** In this approach, attempts are made to modify the behaviour of the Learning Disabled by reorganizing the environmental conditions, providing opportunities for modifications In behaviour and properly re-imposing their change behaviour.

ii. **Psychoanalytical Approach:** In this approach, attempts are made to find out the root cause of this learning deficiency. Accordingly, a remedial program is planned.

iii. **Individualized Instructional Approach:** This approach advocates the use of small groups or even individuals for helping them rectify their learning deficiencies.

iv. **Self-instructional Approach:** In this approach, Learning, Disable children are required to adopt self-learning and self-improvement measures for treating their learning deficiencies. For this purpose, remedial programs like computer-assisted Instruction, Teaching Machines, Instructional CDs, Tape recorder etc can be used.

v. **Multisensory Approach:** In this approach, Learning Disabled children are taught by appealing to their multiple senses, visual, auditory, touch, smell and taste etc.

vi. **Technological Approach:** Advanced technology is used for providing remedial programs for the Learning Disabled. Some example is video- disc instructions, computer-assisted instruction, Audiotape and tape recorder-etc.

3.2 Teaching Approaches for teaching Students with Learning Disabilities:

Teaching Approach	Advantages	Disadvantages
Basal	1. Comprehensive 2. Controlled vocabulary 3. Sequential introduction of skills. 4. Reinforcement of skills. 5. Diagnostic and evaluative material usually provided.	1. Limited flexibility in teaching style. 2. Individualized instruction not encouraged. 3. Lack of depth of material necessary for skill mastery. 4. Lack of provision for processing deficits. 5. No choice of analytic or synthetic phonics instruction. 6. Subject to repetition of the same stories and methods resulting from failure.
Phonics deficits.	1. Effective decoding techniques for pupils with good auditory abilities.	1. Not effective for pupils with auditory 2. May be taught in isolation. 3. Comprehension neglected. 4. Invariance in English language may cause confusion.
Linguistic initial	1. Control for irregular spelling in initial stages. 2. Gradual introduction of phonics. 3. Extensive repetition.	1. Little emphasis on comprehension in Stages. 2. Vocabulary controlled for regular elements and does not utilize spoken language of pupil.
Language	1. Motivates with personal stories.	1. May be limited by pupils' language level.

Experience skill	2. Uses pupil's oral language.	2. Lacks structured systematic approach to development.
	3. Can incorporate specific skill development.	
	4. Can include language art skills.	
	5. Good for pupils with good visual-motor abilities.	
Program-med Instruction Materials	1. Small, sequential steps.	1. Lacks direct instruction.
	2. Immediate feedback.	2. May be confusing format.
	3. May be boring because of Materials consistency.	
Multisensory	1. Uses more than one sensory input in some to get message to the brain.	1. Lack of sequential skill development in some programs.
	2. Can use an analystic approach or a synthetic approach.	2. Sensory overload experienced by some pupils.
Rebus picture	1. Uses a rebus (picture) instead of a word to simplify initial stages of reading.	1. Format appearing immature for older pupils.
	2. Well structured materials.	
	3. Provides for transition to traditional print materials.	

Check Your Progress

Q.1 What are the different approaches of teaching students with learning disablity?

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Q.2 What are the different teaching approaches used to teach learning disable students?

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- **Handwriting:**

Poor handwriting in the learning disabled has been attributed to numerous causes: Poor fine motor control, poor visual discrimination and memory, spatial difficulties. Manipulative exercises can be used to strengthen muscles: cutting, modling clay games. Chalkboard practice should precede pencil and paper writing. Proper position for writing habit to develop. Paper should not be placed at a slant for manuscript writing. The writing instrument is held between thumb and middle finger with index finger applying pressure. Graph paper is of valuable help to teach pupils with special difficulties. A creative teacher improves handwriting using certain techniques as detailed below:

In addition,

- Tape alphabet forms to the floor. Have them reproduce the form with coloured chalk.
- Have pupils use a stick and their bodies to form the letters.
- Write each letter in a paper with red marker.
- Have pupils form letters in wet finger-paint.
- Use coloured directional cues such as green arrows and red dots.
- Teach manuscript letter forms that are oval and slanted slightly. This will encourage left-to-right progression and will facilitate transition to cursive writing.
- Teach pupils to start all lower-case cursive letters from the line.
- Help pupils to form an association for a letter they have difficulty in remembering.
- Have pupils orally describe their movements as the letter is being written. This provides auditory reinforcement.

The various approaches used in teaching by the resource teacher or specialist or classroom teacher have relative advantages and disadvantages.

- **Spelling:**

Spelling errors are quite common among learning disabled children. Therefore a systematic work-study technique is used in the following sequence. "Look at the word—say the word—say the word—look at the word—cover the word—write the word—check your spelling—Repeat". Some of the remedial techniques involve—writing the word on the chalk and then trace it in fingers until it disappears tracing in sand, write the first letter of the word when

one listens the word and them pronounce. Ask the children to spell the word properly and clap softly for each vowel sound, if possible by looking at the word.

- **Arithmetic:**

There are certain specific remedial instruction steps for removing arithmetic errors of learning disabled children. Some of the steps are as follows:

Use manipulative such as buttons and chips to teach number. Use visual material and give reinforcement. Use graph paper for alignment difficulties. Time line, coloured chalks, markings are helpful for attention to cues. A sample problem can be given for each assignment. The size of numbers can vary to indicate more or less. Reduce distractions as far as possible. Reduce number of examples in the assignment and eliminte copying. Use of display charts, abacus, playing cards, calculator, language master are quite useful.

- **Curricular Concerns:**

Learning disabled children read in the class as other children. Hence, certain extra care would benefit these pupils. These concerns may relate to four areas; such as:

- **Auditory Perception:**
  - ➢ Identify classmates from voice when one is blind.
  - ➢ Produce a speech sound and ask if they listen.
  - ➢ Ask whether pairs of words are same or different.
  - ➢ Start naming objects that starts with a particular sound.
  - ➢ Practice rhymes.
  - ➢ Ask them to repeat oral directions.
  - ➢ Tell a sequence of information to improve auditory memory.
- **Visual Perception:**
  - ➢ Match a geometric design.
  - ➢ Ask them to replicate a pattern.
  - ➢ Ask them to classify objects.
  - ➢ Match, sort and group word cards.
  - ➢ Start copying designs from simple to complex.
  - ➢ Tell a story with pictures. Then scramble the pictures and ask pupils to tell the story.

➢ Recall letters speedily and find a series of letters in words.

- **Sensory Motor Development:**
  ➢ Manipulation of object according to directions i.e., in front of, in the middle etc.
  ➢ Use puzzles.
  ➢ Reproduce block designs.
  ➢ Pour water in different containers.
  ➢ Design games.
  ➢ Use tracing, lacing and cutting activities and visual tracking activities.
- **Social Skills:**
  ➢ Discuss different emotions through pictures.

  ➢ Explain body language and symbols.

  ➢ Use T.V. for explaining social encounters and social interactions.

  ➢ Identify topics for discussion with peers, neighbors.

  ➢ Remember key points of conversation.

  ➢ Discuss personal experiences that have caused social difficulties.

Mildly and moderately learning disabled pupils can function satisfactorily in the regular classroom with these adjustments. The regular classroom curriculum may require little modification. These are some of the general techniques of remediation but a specific theoretical model should guide the practioner.

However, learning disabilities cannot be corrected or cured by a specific teaching method or training technique. It is imperative that teachers have a wide range of instructional materials and techniques at their disposal and that they are imaginative and flexible enough to adapt these to specific needs of their pupils.

4.3.3 General Instructional Techniques:

In spite of different educational provisions there are certain general techniques of instruction. The following instructional techniques have been used and recommended for use with LD students.

- use short, brief directions, large print.
- use consistent language, colour cues.
- write directions or steps on the chalkboard i.e., underline important words etc.
- alternate the use of colours for each step in a series on directions.
- increase sound level of instruction.

- use diagrams or pictorial illustrations.
- use an overview of the lesson, ask questions, and ask them to read the material, recite and review.

Since LD students lack structure and organisation, they have to be told to, keep daily engaged in the activities; list all future events that need to be scheduled. Provide a hypothetical list to suggest possible events; and plan future events that must be planned, it is time to develop a weekly schedule. Pupils in the upper grades may find useful a schedule that provides for specific subject matter assignments on various types of activities.

Thinking skills can be developed by guiding students collect data by reading, listening, and observing; and discriminate differences on similarities in the data. Teacher questioning can be used to prod the pupil until the ability to make these discriminations improves. Ask the pupil categories and classify the data. Labeling is important during this stage.

Have the pupil recategories and classify the data in other ways. This continuous reorganisation and restructuring is necessary to integrate new information and new experiences into the pupil's mental structures. Have the pupil make predictions based on the data. Have the pupil generate alternative predictions using the same data. Have the pupil evaluate the alternative predictions by comparing and contrasting possible outcomes and their effects.

Memory ability can be improved by using certain specific techniques; visual and auditory messages can be recalled. Facial expressions indicative of certain materials can be retrieved. Cramming is to be avoided. Certain activities can be practiced to improve auditory, visual memories.

- Have pupils repeat telephone numbers and street address of emergency service facilities (police, fire, etc.).
- Have pupils learn songs by listening to the words and tunes.
- Play games in which the first pupils makes a statement, the next pupil repeats that and adds a statement, the third pupil repeats those statements and adds one, and so on.
- Have pupils make up rhymes related to subject matter, such as, "In 1492 Columbus sailed the ocean blue".
- Have pupils repeat oral directions.

- Have pupils resequence cartoon strips (without words) that have been cut apart. This forces them to observe details in the pictures.

- Have pupils describe configurations of words that are similar.

- Have pupils repeat the sequence for a recipe that they have read.

- Have the pupil practice attending to larger units at one time. For instance, some try to copy one syllable at a time. Encourage the pupil to increase the length of the visual stimulus that she holds in her mind as she write it down.

- Help the pupil to practice internal auditorisation as an adjunct to visual memory; that is, have the pupil say the letters or words to herself while she is translating the written information.

- Write every other item on the chalkboard with a different colour chalk. This helps the pupil to "find her place".

- Allow the pupils to copy another pupil's work. Some of these pupils perform better with paper-to-paper copying.

Teachers must be flexible in their approach to teaching reading because of the heterogenous characteristics of learning disabled pupils. A diagnostic prescriptive approach must be used. The reading programme must be matched to pupil's need and abilities. There are several approaches having different degree of relevance.

The Basal reading approach is comprehensive, which uses controlled vocabulary in a sequential manner with adequate reinforcement. Diagnosis is done in course of teaching but it is not so advantageous for LD children because of its rigidity, individualised nature and lack of provision for removing deficits.

Phonic approach has very limited use especially only for those who had good auditory capacity. Linguistic training also has limited use as it does not aid comprehension.

Language experience approach is most useful as it uses stories personal experiences, child's oral language, incorporates specific skill development, language art skills and makes use of visual motor abilities. Programme instruction is also another viable technique. The other approaches to reading use multisensory approach and use of pictures. Both the methods have limitations. Because of complexities of both the reading process and learning disabilities, it is difficult to make definitive statements.

4.3.4 Strategies of Teaching Students with Learning Disabilities:

The needs of children with different disabilities vary considerably in accomplishing the tasks prescribed by the curriculum. Some children may need only a reading medium as in the case of the visually impaired; whereas others may require a different technique such as lip reading or sign language as in the case of the hearing impaired. Still others like slow learners may require a different presentation. For example, the units of the curriculum may not have been presented in a concrete fashion and made much smaller. All these could be regarded as forms of curriculum adaptation.

With the help of a resource teacher, curriculum adaptations are possible without disturbing the work of the classrooms or adversely affecting the educational process of other children. *Curriculum modification* needs to be interpreted in this fashion. Curriculum modification should not be interpreted to mean curriculum substitution. It is not possible in any educational setting to transact two curricula in the same classroom. *Curriculum adaptation* may call for assistance to the teacher. This can be done by adopting several techniques like peer tutoring, cooperative learning, child-to-child learning and even voluntary participation of the parents. The techniques may have to be adapted, bearing in mind the specific needs of students with different disabilities. This unit also highlights some strategies that can help a child with a learning disability.

Teaching Strategies:

- **Task Analysis:** The teacher can choose an appropriate learning task for the child to master and the final objective should be stated clearly. The final goal is broken down into smaller steps arranged in order of difficulty, with each item being a prerequisite for the subsequent one until the ultimate goal is reached. For example; in teaching a child how to identify colour red, the

following steps may be involved: (i) matching red coloured objects from a group of three or more colours. (ii) pointing to red colour from a group of red and blue colours, when presented in any order, (iii) pointing to red colour from a group of red, green and blue colours, when presented in any order, and (iv) pointing to red colour from a group of red, green, yellow and blue colours, when presented in any order.

- **Structured lesson presentations:** Students with learning disabilities achieve more when lessons are clearly presented, well sequenced and well organised. Explanations should be concise and clearly understood with the key concepts highlighted. Content and way of presentation should vary according to each child's unique abilities and weaknesses. In other words, it should suit the needs f the child.

- **Organised equipment and materials:** The teacher must organise the equipment and materials needed before starting a lesson. The teacher should ensure that the equipment and materials are relevant, easy to comprehend and also related to the material that is being taught.

- **Peer Teaching:** This strategy is also known as child-to-child approach. In this strategy, one student who has proficiency in a skill teaches another student who has problem in learning a concept on a one-to-one basis. A competent student is paired with one who has difficulty in a given academic area. Tutoring may also be cross-age in which an older student gives instruction to a younger student. Usually the tutor with average or above average ability teaches a student with equal or- lower ability. This method must take into account: (a) role of the tutor; (b) selection of the tutor; (c) training of the peer tutor; (d) specific needs of both tutor and the taught; (e) time and effort required for actual tutoring; and (f) supervision of peer tutoring arrangement. It is helpful for the teacher to demonstrate the procedures for the pair. The teacher determines the skills to be taught, the materials to be used and the instructional activity.

- **Multi-sensory Approach:** The multi-sensory method is based on the premise that some children learn best when content is presented in more than one modality. All modalities such as kinesthetic related to movement of the body, touch stimulation along with visual and auditory senses are used to make

learning more effective for the child. In this approach, the child sees, feels, says and hears the content. The multi-sensory techniques that include tracing, hearing, writing and seeing are often referred to as VAKT (visual-auditory-kinesthetic-tactile). In this approach, embossed letters, models, visual aids, blocks, puzzles and other teaching learning material can be used.

- **Cooperative Learning:** Cooperative learning is a method of effectively using student groups in a classroom. The primary elements involved in this technique are: positive interdependence, or the feeling that individual goal attainment relies on the performance of all group members, student's own responsibility, face-to-face interaction with peers, use of social skills and involvement of a group as a whole in the completion of a given academic task. Cooperative learning is an instructional arrangement in which small groups or teams of students work together to achieve team success in a manner that promotes student responsibility for their own learning as well as the learning of others. For example, four students can be placed in a group such that one is a high achiever, two are average achievers and one is a low achiever. Studies have shown that it is not only the low achievers who benefit from cooperative learning, but the high achievers also show significant gains. Cooperative learning can also be used in cross age and multi-grade settings.

  Cooperative learning has been suggested as a technique for aiding in the mainstreaming of mild to severely learning disabled students. Students identified as learning disabled often lack the social skills necessary for positive peer interaction. Cooperative learning provides an opportunity for the observation of peers and the development of good social skills, as well as helping all students in improving academically. However, the teacher has to be skilled enough to form the groups appropriately so that the goal can be achieved.

Stop to Consider:
There are various types of Strategies of Teaching Students with Learning Disabilities. They are task analysis, structured lesson presentations, organised equipment and materials, peer teaching, multi-sensory approach and cooperative learning.

A.   Teaching in specific areas: Some of the strategies that a teacher can use in the classroom for specific areas are given below:

Reading:

• New concepts and vocabulary should be introduced gradually.

• While reading, ask questions from the child to enhance his/her understanding of the content.

• Worksheets are useful in strengthening reading skills.

• Read aloud to students regularly.

• Provide meaningful reading material such as dictionaries, categorised lists of words.

• Let the child read aloud (oral reading). If the child makes mistakes, they can be easily identified by the teacher and corrected.

• Reading can be done with peers or with parents (paired reading). This will enhance the confidence of the child

• Read as a group (choral reading). Here the children get both auditory and visual stimulation to correct themselves

• Use of colour also helps in providing some useful hints to children, who have problems with reading. For example, if the child confuses between b and d, b could be coloured with green and d with red.

• Have the whole class also read aloud in a large group.

Writing:

• Sufficient time should be given for writing activities.

• Expose students to a broad range of writing material.

• Students should be given those writing activities which give them an opportunity to express themselves.

• Teachers should encourage the children to write more in a non-threatening environment. This helps the children to gain confidence over themselves.

• A holistic approach should be used to enhance the writing skills in a child. It should be integrated with other academic subjects.

• Help students focus on those processes that are required for good writing. The students should also be exposed to the different stages of writing such as pre-writing, writing and re-writing.

• The teachers in their lessons should also inform the students about the characteristics of good writing.

• Peers with good writing could also become models for those children, who manifest problems with writing.

• After the child has completed a written exercise, he/she should be encouraged to edit it also. This helps the child in recognising his/her mistakes.

• The teacher should also watch the posture, pencil grip and position of the paper when a child is writing.

• Encourage the child to draw patterns. This helps the child in dealing with his/her inability to track.

• The arm movement of the child should also be closely watched.

• Tape alphabets forms to the floor. Have students play with them in any manner they like.

• Have student's form letters in clay.

• Use coloured cues in writing, such as blue signs and orange dots.

• Help students to form an association for a letter they have difficulty in remembering

• Have students describe the formation of the letter as it is being written. This kind of memorizing provides auditory reinforcement.

Mathematics:

• Use concrete material such as buttons, straws, seeds, pebbles and beads to teach children how to count

• Teacher should use a lot of visual aids to teach simple mathematical operations and concepts • Tactile materials such as embossed numerals, symbols should be used to teach simple concepts such as more or less, short or long. Various lengths and sizes could be taught by tactile presentations

• Concepts such as time and money should be linked to day-to-day events. Use of meaningful vocabulary which includes phrases as tomorrow, in five minutes, as soon as

possible will help the child in increasing his/her awareness about concepts related to time.

• Worksheet activities are also useful in teaching math/ math problems to children with learning disabilities, having difficulty in math.

• Give smaller number of problems to these children. These children can also be given some extra time to complete math assignments.

• Playing cards can be used to teach computation skills to children. Some simple games could also be developed with the help of playing cards.

• Blocks, puzzles and word games are always helpful in making the process of learning mathematical concepts more joyful for the child.

• Use of colours again can give some useful hints. Highlighters can be used to specify directionality and signs (+, x).

• Display charts that explain the process, signs and tell what key words indicate in word problems are also of help to children having problems with math.

• Apply the basic concept of measurement in activities that could be practiced in and outside the classroom.

• Have students estimate distance, weights, and sizes etc.

• Have students use an abacus to facilitate counting, calculations etc.

• Teach students to use rules (e.g. any number times 2 is double that number).

• Difficult problems should be taught with flash cards.

• Play instructional math games.

• Teach students the relationships between addition and subtraction or multiplication and division.

• Use of colours (green means multiplication and red means addition) can prevent these children from being confused between number, symbols and signs.

• Use the method of attack strategy training. In this method, the child uses certain strategies for specific academic problems. Arithmetic computations can be taught with this method.

Attention Deficit Hyperactive Disorder:

• "Reward the student for being prepared by allowing him/ her to participate in favorite activities, conferring classroom privileges (like making the child monitor of the class).

• Establish routines for placing objects, especially routinely used objects such as books or assignments.

• Point out to the salient features of the assignments (topic sentences, headings or table of contents).

• Provide the student with a list of materials needed for each task. Limit the list to only those. materials, necessary to complete the task.

• Enhance the clarity of instructions. Repeat as often in a clear, calm tone.

• Shorten the task by breaking one task, into smaller parts to be completed.

• Make tasks more interesting.

• Increase the novelty of the task by using a game format.

• Use curriculum materials that arouse interest" (Lerner, Lowenthal and Lerner, 1995).

Check Your Progress

Q.4 What are the various teaching strategies to be adopted by a teacher to teach learning disable students?

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Q.5 What are the specific areas that a teacher can use in the classroom for teaching in LD students?

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B. General Interventions for Children with Learning Disabilities:

• Show, demonstrate and model.

• Utilize multi-sensory learning.

• Avoid distractible surroundings.

• Break information down into smaller units.

• Learn how to do a task analysis of goals needed by students by defining the discrete behaviors' or skills leading up to attainment of the final goal, and lead students step-by-step through them to assure success.

• Allow plenty of time to these children to work upon a task as they have poor time management skills.

• These children need to do a task many times before he can master it.

• Give smaller number of problems to these children. These children can also be given some extra time to complete math assignments.

• Playing cards can be used to teach computation skills to children. Some simple games could also be developed with the help of playing cards.

• Blocks, puzzles and word games are always helpful in making the process of learning mathematical concepts more joyful for the child.

• Use of colours again can give some useful hints. Highlighters can be used to specify directionality and signs (+, x).

• Display charts that explain the process, signs and tell what key words indicate in word problems are also of help to children having problems with math.

• Apply the basic concept of measurement in activities that could be practiced in and outside the classroom.

• Have students estimate distance, weights, and sizes etc.

• Have students use an abacus to facilitate counting, calculations etc.

• Teach students to use rules (e.g. any number times 2 is double that number).

• Difficult problems should be taught with flash cards.

• Play instructional math games.

• Teach students the relationships between addition and subtraction or multiplication and division.

• Use of colours (green means multiplication and red means addition) can prevent these children from being confused between number, symbols and signs.

• Use the method of attack strategy training. In this method, the child uses certain strategies for specific academic problems. Arithmetic computations can be taught with this method.

4.4 The Role of Resource/Special Teacher:

The LD children as a group are heterogeneous. As such they require a variety of techniques approaches as well as materials to satisfy their unique educational needs at different levels of development.

At the preschool level, the environment should be arranged to promote efficiency, accessibility, independence and functionality. Safety is also a factor in the preschool setting. Heavy breakable and dangerous materials should be out of reach of these children. At the elementary level children classrooms should not be noisy, visually distracting and sterile. The special educator and the regular classroom teacher should provide a less distracting environment

for students who are overtly distractible and hence learning disabled. Such children can be placed in the centre of the classroom where more often teacher's attention is focused.

Although small group permits individualised instruction yet has demonstrated the efficacy of peer tutoring in instruction, seat work and special projects. Care should be taken to select a good regular peer.

Structure in planning the instructional programme is a must for learning disabled children. The curriculum should be organised sequential and routine based so that the LD child can attend to it carefully. For this task analysis procedure is most relevant. This enables the teacher to break the task into components and help the student at each stage.

The teacher should also provide a summary presentation after each sub-plan of teaching so that LD children can learn well in school and this will provide as an advance organizer for learning.

The equipments and materials must be ready to be used in 'dead time' when the LD children have nothing to do. They cannot waste their times. There are a number of specific teaching procedures' that have been used to remedial academic deficits or failures among LD children. One of the general approaches is cognitive behaviour modification. They help children internalize efficient learning strategies by actively involving them in the learning process mostly consisting of self instruction and verbalization.

LD children lack abilities for metacognition. Hence, teacher can initiate self questioning strategies for students to use while reading: finding main ideas, underline, answering questions, writing down, asking himself the purpose of reading etc. self instructional techniques has been found quite effective for LD children.

Precision teaching is a system of evaluating and improving instruction. It is direct, continuous and precise measure of student progress where the teacher records a wide range of behaviors. They help teachers on track and make accurate instructional decisions.

As regards teaching contents and materials it should be motivating, non-complex, and appropriate for child's level of functioning, and learning style. Using student's name, talents or interests is one way a teacher can make assignments more motivating. Illustrations, too much use of colours in the printed page do distract learning disabled children. Educational games capture students' attention and make learning exciting.

Multisensory approaches have also been applied to teach LD children. Visual, Auditory, Kinaesthetic, and Tactile (VAKT) was developed by Fernald (1943) which is essentially a language experience. He selects a word and goes through feeling seeing, saying and hearing the word. Once the word is mastered the teacher helps them to write a story and then gives him

feedback. In this way new words are learned. Children can be taught through association of a how a letter or word looks, sounds and feels. After he learns the works sentence and story writing begin, gradually they begin to read. There are several combinations of multisensory teaching methods.

Direct instruction which includes assessment, instruction and evaluation are used. DISTAR is one of the direct instructional systems which teaching sequences are so arranged that errors are minimised, it provides ample practice, and give immediate and positive feedback. Distar includes Mathematics and reading components. DISTAR was used first with disadvantaged children and now with LD. It is a back to basics structured programme. Learning strategies are also used for helping LD children to learn. Computer assisted instruction is also being introduced in the school system for the management of IEP (Lerner, 1985).

4.5 Role of Regular Classroom Teacher:

A teacher in a mainstreamed classroom has to make the classroom personalised where individual differences are accepted and valued. Teachers lead students to value and accept personal responsibility for their own learning. They should promote independence, cooperative functioning, and problem solving among all students. Specifically, they—

➢ Accept the perception of learner about classroom environment.
➢ Provide varieties of options to motivate each child.
➢ Encourage independent and small group work.
➢ Increase pupil's commitment, control, and responsibility.
➢ Informal and formal conferences are held.
➢ Ongoing assessment and student evaluation are done to know the each student's progress.

To make these implementable in the regular classroom:

➢ A structured programme has to be avoided.
➢ Allow distractible student to sit in centre.
➢ Use peer teaching and allow the LD child to be tutor.
➢ Drive homework on the curriculum taught.
➢ Keep close contact with parents.
➢ Tailor the programme to student's needs.
➢ Make task analysis and lead student step by step for learning.

Learning difficulties are quite pervasive and non-specific, which arise out of several factors and are achievement specific. In regular schools, learning disabled students can be handled well if regular and resource teachers become conscious and sensitive to the problems of these children. The various concerns expressed in the field are mentioned along with tips for relevant remedial measures.

4.6 Summing Up:

Learning disability refers to a group of disorders relating to acquisition and use of listening, speaking, reading, writing, reasoning, mathematical abilities and social skills. Conservative estimates indicate three per cent of school children to be learning disabled.

Causes of LD include organic (Cerebral hemorrhage, high fever, head injury, premature birth, anoxia, trauma, neurochemical dysfunction, minimal brain dysfunction, hypoglycemia or low blood sugar, hereditary (Turner's Syndrome) and environmental factors (use of drugs, alcohol, Rubella infection, birth injury, poor and inadequate instruction in school).

LD children are identified by their gross discrepancy in ability and achievement, low achievement, scattered assessment profile through tests and observation of behaviors, distractibility, inattentiveness, wrong perception, problem of left and right remembering and organisation difficulties. DIAL is used for early identification of LD in addition to PPVT, BTBC, EDC etc.

Characteristics of LD children include hyperactivity, perceptual motor impairment, emotional liability, impulsivity, disorders in speech and learning, equivocal neurological signs, language difficulties in reception and expression, reading troubles or dyslexia.

Educational provisions consist of day school, special class in a regular school, and integrated classroom. In order to teach these children general instructional techniques (use of shot and brief directions, large print, consistent language, increased sound level of instruction, pictorial presentations), use of memory training strategies, Basal reading, phonic approach, language experience approach, programmed instruction, multi-sensory approaches are used with differential effectiveness. Specific procedures are available for improvement of handwriting, spelling, writing, reading, arithmetic and these are outlined in detail in the text, including curricular concerns (auditory perception, visual perception, sensorimotor development, social skills).

The role of special/resource teachers include awareness and adoption of small group instruction, classroom arrangement, equipments and materials, precision teaching, multisensory teaching, direct instruction and IEP. The regular teacher has to make classroom personalised and accepting, encouraging, motivating, structured tailor made to needs with appropriate task analysis. Both special education and integration are recommended for LD children but the focus is more on the mainstreaming.

4.7 Questions and Exercises:

1. Discuss different approaches of teaching learning disable students.
2. Discuss different teaching approaches of teaching learning disable students. State its advantages and disadvantages?
3. What are the instructional techniques to be used and recommended for use with LD students?
4. What are the various Strategies of Teaching Students with Learning Disabilities?
5. Discuss the role of Resource/Special Teacher for improving learning disabilities among students.
6. Discuss the role of regular classroom Teacher for improving learning disabilities among students.

4.8 References and Suggested Readings:

1 **Lerner,J**.(2002) Learning Disabilities,(8th ed)Boston: Houghton Mifflin.
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4.9 Answers to Check your Progress:

Ans No 1.: There are various types of specialized approaches to teach students with learning disabilities. They are Behavioural Approach, Technological Approach, Individualized Instructional Approach, Self-instructional Approach, Multisensory Approach, and Psychoanalytical Approach.

Ans No 2.: Basal, Phonics, Linguistic, Language Experience, Programmed Instruction Materials, Multisensory, Rebus picture are some of the teaching approaches for the students having learning disability.

Ans No 3.: These are the following instructional techniques that have been used and recommended for LD students.

- use short, brief directions, large print.
- use consistent language, colour cues.
- write directions or steps on the chalkboard i.e., underline important words etc.
- alternate the use of colours for each step in a series on directions.
- increase sound level of instruction.
- use diagrams or pictorial illustrations.
- use an overview of the lesson, ask questions, and ask them to read the material, recite and review.

Ans No 4.: There are various types of Strategies of Teaching Students with Learning Disabilities. They are task analysis, structured lesson presentations, organised equipment and materials, peer teaching, multi-sensory approach and cooperative learning**.**

Ans No 5.: Reading, Writing, Mathematics, Attention deficit hyperactive disorder are some of the specific areas that a teacher can use in the classroom for teaching in LD students.

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