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## UNIT 2 APPROACHES TO LEARNING

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### 2.1 INTRODUCTION

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Course one, i.e. BES 121, has acquainted you with the development of the child in general as well as an unique individual. This acquaintance will help you in understanding the behaviour of your learner. As a teacher, you should not only know your learner but also the process of learning. In this unit, you will study various approaches to learning. While dealing with various approaches, you will study the elements of behaviouristic, cognitive and humanistic approach to learning that have emerged in recent years. Characteristics and limitations of each approach have been discussed in the Unit. We present various classroom as well as educational implications of each approach.

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## 2.2 OBJECTIVES

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

- examine various approaches to learning;
- explain the concept of the behaviouristic, cognitive and humanistic approaches to learning;
- delineate the chief characteristics of these approaches; and
- discuss critically the applicability of these approaches to your classroom teaching.

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## 2.3 APPROACHES TO LEARNING

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Approaches to learning describe and explain the conditions under which learning does and does not take place. This movement is towards theorising the process of learning. It attempts to provide a definite coherence to one particular subset of experimental findings in the field of learning.

Approaches to learning are concerned mainly with the modus operandi, procedure, style or technique of learning. These approaches apply to all learning tasks. Generally, there are two types of approaches prevailing in the world of learning. They are Surface approach, and Deep approach.

**Surface approach:** In this approach, the learner's intention is just to complete the task requirements. Instead of properly understanding the content, s/he just memorises information/answers to the anticipated questions. This task is treated as an imposition on her/him.

**Deep approach:** Here, the learner's intention is to understand the meaning of learning object. S/he interacts actively with the content, relates new ideas to her/his previous knowledge and to her/his everyday experience. S/he examines the conclusions drawn by the author or the teacher and sometimes even seeks alternative solutions.

The two approaches cited earlier to learn give rise to an offshoot known as **strategic approach**. In this approach, the learner's intention is to get the highest possible marks or grades in the term-end examinations. To achieve this, s/he may choose either of the two approaches. But the most important characteristics of the strategic approach are well-planned and carefully organised study methods with the systematic management of time and efforts.

Learning theories that emerged during the twentieth century have been supported by experimentation. The theories may be classified into four major approaches/faculties of learning or the schools of thoughts namely behaviouristic, cognitive, social and humanistic approaches. Here we will study them one by one.

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## 2.4 BEHAVIOURISTIC APPROACH TO LEARNING

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The approach which describes learning as a connection between stimulus and response is the behaviouristic school of thought. This approach to learning emphasizes that behaviour begins with reflexes i.e., natural responses and new behaviour results from the acquisition of new bonds of stimulus and response

through experiences. Behaviourism has its roots in what is called the **associationistic school of psychology**. The school believes that recollection of an item of knowledge is facilitated by associating that idea with another when the individual learned it. For example, an aroma of flowers is associated with some occurrence in life which generates good or bad feelings later in life.

The major tenets of the behaviouristic approach are as follows:

- Learning brings about changes in behaviour.
- Learning takes place if environmental conditions are arranged appropriately with general changes.
- Learning is the result of continual interaction of the individual with the environment.
- The resultant behavioural changes are objectively observable.

### 2.4.1 Concept of Behaviouristic Approach to Learning

Behaviourists were strongly influenced by the work of the Russian Psychologist Ivan Pavlov. They devoted themselves to study the overt (directly observable) behaviour. They believed that overt behaviour was determined by a complex system of independent stimulus-response connection made more complex through learning. Thorndike, Watson and Skinner, gave more emphasis on objectivity in behaviour. Pavlov's experiment with the salivating dog is a famous one.

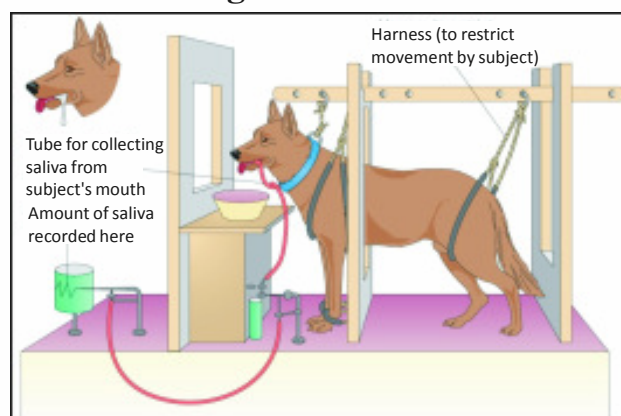
### 2.4.2 Characteristic of Behaviouristic Approach to Learning

The behaviouristic approach has the following important characteristics:

- Behaviourists believe in the objective study of behaviour - animal and human being both (objectively observable behaviour).
- Its chief emphasis is on environment. This approach considers environment more important than heredity in the determination of behaviour.
- Conditioning is the key to the understanding of behaviour, which is composed of stimulus and response links and can be successfully analysed by the objective scientific method.
- The chief method of learning is condition.
- Behaviourists believe that one unit of knowledge gets associated with a new unit of knowledge by virtue of similarity, contrast or contiguity (closeness of occurrence in time or situation).

### 2.4.3 Pavlov's Classical Conditioning

Pavlov was basically a physiologist. While working on digestive system, he proposed a theory of learning which propagates stimulus-response conditioning. This theory is known as 'classical' as it was first theory of conditioning, later Watson and Skinner worked on its different dimensions.



This learning theory of Pavlov is based on his famous experiment of dog.

This theory explains learning by associations and focuses on learning of involuntary emotions or psychological responses such as fear, increased muscle tension, salivation or sweating. (Woolfolk, 2013, p. 235)

During the salivation experiment, Pavlov proposed few concepts, which are very important to know, if one wants to understand classical conditioning.

**Neutral Stimulus:** It is a stimulus which is not responsible directly for desired response in neutral condition, e.g.: a tuning fork or a bell has nothing to do with salivation, if it is being used without association with food.

**Unconditioned Stimulus:** It is a stimulus which does not require any conditioning for desired behaviour. Sometimes it is known as natural stimulus also, e.g. Food is an unconditioned stimulus for salivation.

**Conditioned Stimulus:** When a neutral stimulus is conditioned with an unconditioned stimulus for bringing desired behaviour change, it becomes a conditioned stimulus. A bell or a tuning fork when presented as stimulus along with food, and get conditioned for salivation, it is conditioned stimulus.

**Unconditioned Response:** The behaviour which does not require any training or conditioning for association with an unconditioned stimulus, e.g. salivation is unconditioned response for food as unconditioned stimulus.

**Conditioned Response:** The behaviour or response occurred due to conditioned stimulus, is known as conditioned response, e.g. salivation after ringing the bell or tuning fork is a conditioned response.

He further identified few important processes in classical conditioning:

**Generalization:** If behaviour occurs in presence of other stimulus similar to the conditioned one, this is called generalization, e.g. salivation after hearing the sounds similar to bell (sometimes may be in higher or lower tone also), is called process of generalization.

**Discrimination:** Pavlov proved that at higher level of conditioning, dog learnt to distinguish the sounds and stopped salivation on sounds other than the bell. This is called discrimination.

**Extinction:** If only conditioned stimulus is being presented repeatedly without associating with the unconditioned one, the desired behaviour (salivation in this context) faded and stopped to occur.

**Spontaneous Recovery:** Pavlov observed, if after extinction, the unconditioned stimulus is being associated again with conditioned stimulus, the behaviour re-occurs immediately.

These are few concepts as outcome of Pavlov's experiment.

Classical conditioning helps a teacher to associate positive events with learning. It helps in avoiding undesired behaviour also and helps learners in recognizing the situations to discriminate and generalize properly.

## 2.4.4 Skinner's Operant Conditioning

Behaviour refers to an activity of an organism that can be observed and measured by another person/organism or by experimenter. It includes activities like pressing a key or a lever, or a button, uttering a word, answering a question correctly, solving problems, and so on. Skinner, as distinct from Pavlov and other behaviourists, used the operant conditioning approach to the study of learning (operant is the response made by an organism to the surrounding environment). When a dog, for example, is taught a trick, it is usually rewarded by food or by patting after it makes the appropriate behaviour. Operant behaviour can be evoked by a wide range of stimuli. This can be brought under stimulus control through the process of discrimination. The basic operation in a Skinnerian experiment is to determine the rate at which a given operant (e.g. pulling a level or pecking a key) is emitted under a given set of conditions.

**Operant Conditioning** is also known as reinforcement conditioning. Here, the **reinforcement is correlated with the response rather than with the stimuli**. In this type of conditioning, reward or reinforcement is not possible unless the response is emitted. In other words, reinforcement becomes contingent upon the stimulus.

According to Skinner, the basic law underlying this type of conditioning is that if the occurrence of an operant is followed by a reinforcing stimulus then the conditioning is strengthened. In other words, what gets strengthened is the response, or operant and not an S-R connection as in Thorndike's **law of effect**.

Skinner demonstrated his theory of learning his theory of learning by the simple experiment of putting a hungry rat in a box (known as Skinner Box). When the rat after fretting about, presses a lever accidentally, food is released. Every time Rat does this, it gets food. After several repetitions, the rat learns that if he is hungry, he can get food after pressing the lever and he goes straight to the lever, presses it and gets good. In other words, food reinforces that rat's activity of pressing lever. Here behaviour and appropriate response are important factors. If reward is withheld repeatedly, the behaviour extinguishes.

**Operant conditioning** is a learning force which affects desired response more frequently by providing a reinforcing stimulus immediately following the response. The most important principle of this type of learning is that behaviour changes according to its immediate consequences. Pleasurable consequences strengthen behaviour while unpleasant consequences weaken it. For example, a pigeon pecks the red ball and gets food in Skinner's famous experiment. Because of food (reinforcement), the pigeon is likely to peck the same ball again and again.

In operant conditioning, learning objectives are divided into many small steps/tasks and reinforced one by one. The operant - the response/behaviour of act - is strengthened so as to increase the probability of their reoccurrence in the future. Three external conditions - reinforcement contiguity and practice - must be provided in operant conditioning.

**Reinforcement:** The most important aspect of Skinner's theory of learning relates to the role of reinforcement. An organism is presented with a particular stimulus - reinforcer - after it makes a response. In a given situation, the organism will tend to repeat responses for which is reinforced.

Skinner distinguished between positive and negative reinforcements. Positive reinforcement is a stimulus which increases the probability of desired response. The positive reinforcement is a positive reward. Praise, smiles, prize, money, a funny television programme, etc. are the example of positive reinforcement. In negative reinforcement, the desired behaviour is more likely to occur if such stimulus reinforcement is removed. For example, we can close windows and doors to avoid hearing loud noise; we can avoid wrong answers by giving right answers. Here noise and wrong answers are negative reinforcers. Thus a negative reinforcer is negative reward - the avoidance of which gives us relief from unpleasant status of affairs. Skinner did not equate negative reinforcement with punishment.

### 2.4.5 Educational Implications

The behaviouristic approach is one of the most important contributions to learning which throws light on habit formation, habit breaking and the role of incentives in learning. This approach is helpful in shaping the behaviour of students in the desired direction. Skinner has demonstrated in a number of ways how operant behaviour is shaped. The approach also helps the teacher in increasing the vocabulary of his students.

The most significant contribution to this theory in educational practice is the concept of programmed learning and introduction of teaching machines in teaching-learning. Let us elaborate both the concepts.

**Programmed instruction:** It is a system of teaching-learning within which pre-established subject matter is broken down into small discrete steps which are carefully organised into a logical sequence and which can be rapidly learned by the students. Each step builds upon the previous one. Reinforcement is given after each step. There is a provision for checking the progress. If the response is correct, the student can go ahead, if not then he can proceed to the next step after registering the correct response.

Programmed Instruction is highly individualized instructional strategy and is an effective innovation in the teaching process. It is found quite useful for classroom as well as self-learning.

**Teaching machine:** It is another application of the behavioural approach to learning. Teaching machines present items in an essentially predetermined sequence, permit the students to respond and give them immediate feedback. Teaching machines are automatic devices which present a question or other stimulus to a stimulus, provide a means of response, and then inform him/her of the correctness of his/her response immediately after he had responded. They are of two types (i) constructed-response and (ii) multiple-choice machines.

Skinner's theory suggests the great potentiality of the shaping procedure for behaviour modification. According to this theory the following procedure is applied to ensure effective learning in students:

- Learning objectives should be defined very specifically in terms of behaviour
- Objectives should be arranged in order of simple to complex.
- For developing motivation among the students, the classroom reinforcers like praise, blames, grades, etc., should be used.

- Proper use of positive and negative gestures also serves as reinforcers to work.
- Reinforcers should be used periodically so that the possibility of extinction of the desired behaviour is resisted.
- In the classroom, the principle of immediacy of reinforcement is very important. Praise for a job done well given immediately can be stronger reinforcer or motivator than a grade given much later.

Skinner's principles of learning focus attention on the individual's pace of learning.

### Check Your Progress 1

**Notes:** a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

1) What is the role of conditioning in programmed instruction?

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### 2.4.6 Limitations of Behaviouristic Approach

The behaviouristic approach to learning has certain limitations. Important among them are as follows:

- The approach considers human being as a machine which may not be true.
- This approach explains emotions, thoughts and actions entirely with reference to only this over behaviour.
- It is doubtful if the results derived from controlled experimental studies on animals would yield the same results on human beings insocial learning situations.
- It is argued that the behaviourists have ignored the structural and hereditary factors which are very important in the development of psychological process of language.
- The operant reinforcement system does not adequately take into account the elements of creativity, curiosity and spontaneity in the human beings.
- Behaviourists argue that all human behaviour is acquired during the lifetime of the individual. Thus this theory gives no place to the importance of genetic inheritance.
- Skinner's theory of learning dehumanises the learning process on account of its emphasis on the mechanisation of the mental process.
- Operant theory of learning does not deal with the depth of mind and thus it is artificial in nature.

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## 2.5 COGNITIVE APPROACH TO LEARNING

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In the behaviouristic approach, learning is seen as the overt behaviours of learners, while in the cognitive approach, learning is considered as inner psychological functioning such as perception, concept formation, attention, memory and problem-solving. In this approach the learner first perceives the total situation in the problem field, finds a relationship between the elements of the object or the problem, and deduces a strategy for solving the problem.

The major tenets of this approach are as follows:

- Learning is an active process involving change in the cognitive structure.
- Learning requires cognitive effort and accurate conceptual understanding.

### 2.5.1 Concept of Cognitive Approach to Learning

The word 'cognition' is derived from the Latin word '*cognoscere*' which means to know, or to perceive. Cognitive theories discuss how people gain an understanding of themselves and their environment and how, in using this, they act in relation to their environment.

According to cognitive theorists, teaching is a process of developing understanding or insight in the learner. Learning is the organization of precepts and purposes by the learner. Classroom experiences are related to the individual goals of learners. These experiences are encouraged to discover relationship to create the consequences of their efforts.

Cognitive approach emphasizes and gives importance to cognition (perception) in learning. According to this approach, learning is a complex process and it is viewed as acquiring changes in the cognitive structure. In other words, learning is the change in the cognitive structure. These changes (learning) take generally in basically three ways. They are:

- Differentiation
- Generalisation, and
- Restructuration

Let us elaborate each of these.

In **differentiation**, learning begins by differentiating specific aspects of oneself and of one's environment. For example, an infant perceives every woman as his/her mother. Later on s/he differentiates between mother, aunt, sister, etc. Thus the cognitive structure becomes more specific.

In **generalisation**, concrete and particular instances are given and the children reach general conclusion or generalisation. After differentiating the concept, the child gradually categories the differentiated concepts on the basis of specific unifying characteristics known as generalisation. For example, the child first learns to differentiate between various things as men, women, animals, birds, etc. and later on s/he unifies these differentiated concepts to form a single concept - **living things** and thus generalisation is reached.

**Restructuration**, as the processes of differentiation and generalisation take place, the individual restructures his cognitive structure to accommodate these



differentiated and generalized concepts to gain control of him/her and the world. The child learns that all living things do not behave as human beings do. Thus, the concept of living things is restructured.

### 2.5.2 Characteristics of Cognitive Approach

The main characteristics of the cognitive approach are as follows:

- Earlier cognitivists gave more emphasis to **insight** while the modern cognitivists place more importance on the **human mental process**, similar to a computer system in operation.
- In the cognitive approach, learning is considered as an active and dynamic process
- In this approach the perceptions of learner are processed through differentiation, generalisation and restructuration which help the learner in reacting to the specific cognitive structure to get a clear picture of the environment.
- The cognitive approach is represented by a dynamic system.
- The learner is purposive and interacting within the field of his/her goals.
- It is the most suited for concept formation, problem solving and other higher mental processes.

### 2.5.3 Jean Piaget's Cognitive Approach to Learning

In recent times, the work of Piaget has received a lot of attention. Piaget's work has influenced a lot of thinking.

Piaget studied the growth and development of the child. The main objective of Piaget has been to describe the process of human thinking from infancy to adulthood.

Jean Piaget's theory of cognitive development redefines intelligence, knowledge and the relationship of the learner to the environment. Intelligence, like a biological system is a continuing process that creates structures. In continuing interactions with the environment, s/he needs intelligence. Similarly, knowledge is an interactive process between the learner and the environment. Knowledge is highly subjective in infancy and early childhood and becomes more objective in early adulthood.

He believes that learning is a function of certain processes. They are: **assimilation, accommodation, adaptation and equilibration**. Let us discuss each process in detail so that Piaget's cognitive approach to learning is understood properly.

**Assimilation:** It is a process of incorporating new objects and experiences into the existing schema (here, schema refers to well-defined sequences of actions). As soon as the schema of action is developed, it is applied to every new object and in every new situation. Assimilation of experiences into a succession of cognitive scheme takes place. Later, representation of words and actions using symbols takes place resulting in representational schema. The observation of surroundings and process leads to assimilation in the early stages of learning. This assimilation accounts for the children's ability to act on and understand something new in terms of what is already familiar. Assimilation is followed by accommodation.

**Accommodation:** In the individual's encounters with the environment, accommodation accompanies assimilation. Accommodation is the adjustment of internal structures to the particular characteristics of specific situations. For example, biological structures accommodate the type and quantity of food at the same time so that the food is being assimilated. Similarly, in cognitive functioning, internal structures adjust to the particular characteristics of new objects and events. Accommodation also refers to the modification of the individual's internal cognitive structures. When the learner realizes that his or her ways of thinking are contradicted by events in the environment, the previous ways of thinking are reorganized. This reorganization, which results in a higher level of thinking, is **accommodation**.

As the child continues to confront experiences in the environment, the schema is so formed so as to not remain permanent. S/he has either to combine her/his previous schemata or to modify them as per new experiences. The process of combining/modifying existing schemata and the arrival at new schemata is known as accommodation. Here, the child remains active and explores questions, experiments, etc.

**Equilibration:** In cognitive development, equilibration is the continuing self-regulation that permits the individual to grow, develop and change while maintaining stability. Equilibration, however, is not a balance of forces but it is a dynamic process that continuously regulates behaviour. It indicates the balance between assimilation and accommodation. Equilibration is the factor that maintains stability during the process of continuous interaction and continuous change. Without equilibration, cognitive development would lack continuity and cohesiveness but instead would become fragmented and disorganized.

Equilibrium is the balancing act between the old and the new, between perceptions and experiences. It is a dynamic process that attempts to reduce dissonance.

**Adaptation:** Assimilation helps in getting new experiences into existing schema, while accommodation helps in combining/expanding/changing the new schema based on new experiences. Thus, the individual is helped in adjusting to new environment. This adjustment to a new environment is known as adaptation. This adaptation is also not the permanent one. S/he develops many new or modified schemata as s/he alters or extends her/his range of action. Adaptation results from the interactionist process between the organism and environment--which helps the individual to organise her/his life experiences from the environment. In adapting to events in life the person tries to assimilate all experiences and information into existing cognitive structures. If this is possible, s/he accommodates by changing the cognitive structure. By assimilating the new to the old and by accommodating the old to the new, the person learns. The process of adaptation continues throughout life.

Based on his characterization of cognitive functioning as consisting of organization and adaptation, Piaget has presented a definition of intelligence. He believes that intelligence is not a fixed trait set for life but rather a process of adapting to the environment. The environment makes demands from the person. These demands are reacted to when the person assimilates aspects of the environment into existing cognitive structures and accommodates the cognitive structures to environmental demands. In the first case, the person's behaviour is

determined by existing cognitive structures. In the second case, the person's cognitive structures are modified by the environment. The result is adaptive behaviour or intelligence. Adaptation is a process through which a person seeks an equilibration or balance between what s/he presently perceives, knows and understands and what s/he sees in any new phenomena, experiences or problems.

Adaptation is the human tendency to survive for equilibrium or balance between self and environment. The equilibrium is conceptualised by Piaget as a dynamic and growth-producing process which would be achieved at each intellectual stage, before a person reaches the next level of cognitive functioning. Therefore, the adaptation and the growth of organisms provide an explanation of the problems and processes involved in the adaptation of intelligence or knowledge (Piaget 1980).

Piaget has mapped out in detail the stages by which cognitive functions develop and the times at which given concepts may be expected to appear.

Piaget has propounded the four stages thus - probably the clearest version of his classification as sensory-motor, preoperational, concrete operations and formal operations. Each stage represents an increase over the previous one in the child's ability to think abstractly, predict the world correctly, explain reasons for things accurately, and generally deal intellectually with the world.

- i) **Sensory-motor stage:** This is known as the first stage. It extends roughly from birth to the age two. As the name implies, the schema that develops during this stage are those involving the child's perception of the world and the coordination by which s/he deals with the world. It is during this period that the child forms his/her most basic conceptions about the nature of material world. He learns that an object that has disappeared can reappear. S/he learns that is the same object even though it looks very different when seen from different angles or in different illuminations. S/he relates the appearances, sound and touch of the object to one another. S/he discovers ways in which her/his own actions affect objects, and acquires a primitive sense of causality. Thus, her/his world becomes increasingly an orderly arrangement of more or less permanent objects, related casually to each other and to her/his own behaviour.
- ii) **Proportional stage:** It is known as the second stage and extends roughly from about age 2 to 7. In this stage, the child begins to exhibit the effect of having learned language. S/he is able to represent objects and events symbolically: not just to act towards them, but to think about them. The children have internal representations of objects before has words to express them. These internal representations give the child greater flexibility for dealing adaptively with the world, and attaching words to them gives him/her much greater power of communication. However, his/her intellectual abilities are still very limited compared with those of an adult. His/her thinking is still decidedly concrete by an adult standard. S/he tends to focus on one aspect of a situation to the exclusion of others, a process that Piaget calls *cantering*. His/her reasoning can be a logician's nightmare, and s/he finds it difficult to understand how anyone else can see things from a point of view other than his/her own. S/he is thus, as the name of the stage implies, still early in the process of acquiring a logical, adult intellectual structure.

iii) **Concrete operation stage:** The third stage extends from age 7 to 11. Again, this represents an increase in flexibility. In this case, over the preoperational. The sort of operations to which the name of the stage refers includes classifying, combining and comparing. The child in the stage of concrete operations can deal with the relationships among hierarchies of terms such as robin, bird and creature. S/he is aware as the preoperational child is not, of the reversibility of operations. What is added can be subtracted, and a substance that has been changed in shape can be restored to its original shape. A girl at this stage will not fall into the fallacy that a preoperational girl may of saying, "I have a sister, but she doesn't have any sister".

Again, however, Piaget pointed out this is not the whole story. One child may have learned arithmetical operations by role fail to supply them when appropriate, while another child may deal effectively with problems without ever having been exposed to arithmetic. Learning of symbolic manipulations may be helpful to the child in going from the wide variety of concrete situations is more important.

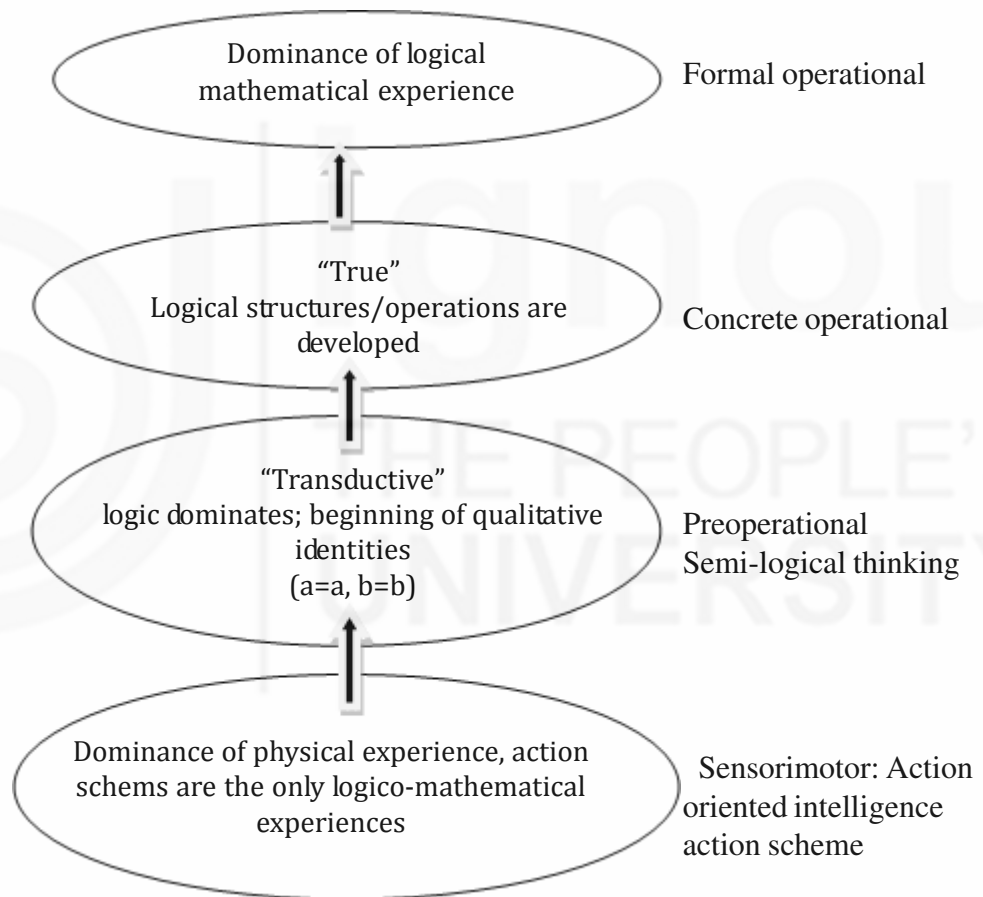


Fig 10.1: Cycle of Cognitive Development

iv) **Formal operations stage:** The fourth stage and final stage around age 11 years. It involves improvements in abstract thinking, continuing to about age 16. In this stage, the capacity for symbolic manipulation reaches its peak. Though children in the previous stage have been able to perform a number of logical operations, they had one so within the context of a concrete situation. Now, the person intellectuality, because s/he is no longer a child, can view the issues abstractly. They can judge the validity of logical argument in terms of their formal structure, independent of content. S/he can explore

different ways of formulating a problem and see what their logical consequences are. S/he is at least ready to think in terms of a realm of abstract propositions that fit in varying degrees in the real world that s/he observes. S/he may not demonstrate all the tendencies in every possible situation, but s/he has reached the stage at which he is capable of doing so. The intellectual apparatus of formal reasoning that provides the basis for so much human achievement is at least potentiality at his/her disposal.

Children may not show those stages within the age-ranges specified above, because of differing home and school environments. But what Piaget insists on, is that the sequence of these stages in intellectual development remains the same for all children.

At the higher education level, we are concerned with learners who are at the fourth stage i.e. formal operation stage. Therefore, we should know more about this stage. (learners at undergraduate level are expected to beat this stage).

The important characteristics of the formal operation period/stage are listed below:

- Learner at this stage survey many possibilities
- They design a system of what is hypothetically possible, is structured and followed by empirical verification.
- They can conceive of an imaginary world.
- They become critical of their own standards and look objectively at the assumptions in hand
- They accept assumptions for the sake of argument
- They generate hypotheses, discuss and proceed them to test
- They try to generalize things
- They become conscious of their own thinking and provide rational/justification for their thinking, judgement and actions.
- The older adolescents or adults are sufficiently detached from their ego and from their inner world to be objective one. They are also detached enough from external things to be objective observers and to be able to reason about the assumptions and the hypotheses and as such they can establish general laws.
- They go even to the extent of finding empirical and mathematical proofs for their observations.
- At this stage, thinking goes beyond the immediate present and attempts are made by them to establish as many vertical relationships as possible.
- Notions, ideas and concepts are formal which belong to the present and future.

#### **2.5.4 Educational Implications**

The following important direct/indirect educational implications of Piaget's approach to cognitive development are given below:

- Piaget's description of cognition (as a result of interaction of the individual with environment, accompanies by the process of assimilation and accommodation) includes that cognitive development is a continuous process

from birth to adulthood. This theory believes in gradual progression from one stage to another. Therefore, the teacher should try to determine the levels/stages of development of learners and accordingly s/he should plan his instruction/teaching.

- The relationship between the educational system and the child will be a unilateral and reciprocal one.
- Childhood is accepted as a necessary and important phase in the development of logical thinking.
- Science and mathematics are taught with actions and operations. Such instructions should begin in nursery school with concrete exercises.
- Experimental procedures and free activity through training should be introduced for both liberal arts and science students.
- Active methods that require the learners to rediscover or reconstruct the truths to be learned should be used. The teacher also provides counter examples to the learner that lead to reflection of their often hasty solutions.
- Audio-visual aids can serve only as accessories in the learner's personal investigations of truth.
- Give-and-take can be developed in the group.
- Spontaneous activity with small group of learners brought together by means of their mutual interest in a particular activity should be the major feature of classroom learning. The classroom should be a centre of real activities carried out in common so that logical intelligence may be elaborated through action and social change.
- Learners must be permitted to make their own mistakes and to correct these errors themselves. Therefore, classroom instruction must be planned to facilitate the process of construction, assimilation and accommodation through which physical/empirical abstraction and reflective abstraction can occur.
- The process of experimentation by learner at all ages is important. Only through experimentation the learner can acquire the skills that are necessary for formal operational thought. More importantly, experimentation often gives birth to new ideas. For young children, their first new ideas may not seem so original to adults. But such a practice in which children are encouraged to develop new ideas can lead to original discoveries. The more we can help children to have their own wonderful ideas and feel good about themselves for having them, the more likely it is that they will someday happen upon wonderful ideas that no one else happened upon before.
- The cognitive activity that is generated by experimentation is essential. A child can be mentally active without physical manipulation just as s/he can be mentally passive while actually manipulating objects.
- Many activities in pre-school curricula can provide opportunities for cognitive development. Block painting, finger painting, musical games, cooking, dramatic plays etc. engage the children in empirical and logical-mathematical abstraction.

- The classroom should provide situations to children in constructing their own knowledge so that the children can comprehend the world in new ways at different cognitive levels.
- Classroom activities should maximize the child's opportunities to construct and coordinate many relationships that he or she is capable of exercising.
- At the pre-school level, the child is more interested in the observable effects or his or her actions than in relating the result to an organized cognitive structure.
- The implications of educational practice are important. First, a variety of activities games and experiences should be provided to that the learner can exercise his or her developing subsystems. One suggestion is to use individualized mathematics laboratories that utilize a variety of materials for measurement and experimentation. Examples include blocks, dried peas, matchboxes, drinking straws, pipe cleaners and so on.
- Games and activities that can provide experience with classification and serration are also needed. Classification games can be developed using blocks or pieces of plastic or felt that vary in two properties, such as colour and shape. Circles, squares and triangles in red, blue, yellow and green for example may be used in a variety of ways. Card games in which shapes and/or colours are to be matched is one example.
- Drill and practice should be given in the classroom to make teaching-learning effective.

### 2.5.5 Limitations of Piaget's Approach

Piaget's approach to learning has some limitations also. The important limitations are as follows:

- Piaget does not seem to make his terminology very clear to his readers.
- He is too preoccupied with numerous epistemological considerations.
- Piaget's entire work lacks scientific methodology as conventionally understood.
- His emphasis is on concepts of relationships and he does not investigate nominal concepts.
- It's lengthy and time consuming.
- No direct teaching is involved.
- Mathematics and Science cannot be applied in early childhood.
- Tailoring narrow exercises for individual children is both impractical and unnecessary.
- The child does not notice the contradictions in his or her own explanations.
- Children may lose confidence in their ability to figure things out.
- a child cannot engage in abstract thought and cannot perform any useful scientific activity.
- The preoperational child or even the concrete operational child is not yet ready for reading since his thought structures are as yet primitive.

### Check Your Progress 2

**Notes:** a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

1) if you have to understand learning by problem solving, which approach is useful and why?

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2) What is the role of perception in the cognitive approach?

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## 2.6 SOCIAL LEARNING APPROACHES

In contrast to behaviourist and cognitivist thinker, there were few who proposed that role of social interaction is very important in learning. Bruner (1986) said “**I have come increasingly to recognize that learning in most settings as a communal activity, a sharing of culture.**”

Social perspective to understand learning was considered as important one by Bandura in his **social learning theory** as well as by Lev Vygotsky in his **social constructivist approach**. We will discuss in brief about these theories here.

### 2.6.1 Social Learning Theory

In his social learning theory, Bandura distinguishes **acquisition of knowledge (learning)** with **observable performance based on that knowledge (behaviour)**. His theory emphasised on learner through observing others’ behaviour and actions, this he called observational learning. We will discuss in details about observational learning in unit 4 on this block.

### 2.6.2 Social-constructivist Approach

Vygotsky advocated socio-cultural perspective of learning. According to him, social and cultural interactions for a learner are very important. He assumed that “**every function in a child’s cultural development appears twice: first, on the social level and later of the individual level; first between the people and then inside the child.**” (1978, p. 57)

Vygotsky had a belief that a child learn better if s/he receives the support from a more learned individual. **Zone of Proximal Development (ZPD)** and **scaffolding**



are the key concepts as outcome of his theory. We will discuss in detail about all these in unit 3.

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## 2.7 HUMANISTIC APPROACH TO LEARNING

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Humanists think learning as the way in which the individuals develop a unique way of controlling their environment and attaining the best potential. Humanistic approach is based on humanism, which is a philosophy of **Man-ism or Human being-ism**, concerned with human and humane interests, characteristically human, not supernatural belonging to human beings and not to external nature, raising a human being to his/her greatest potential or giving him/her as a human being, the greatest satisfaction.

The major tenets of the humanistic approach are given below:

- Humanistic psychologists view learning as a process that is inevitable and unique for every individual
- Human beings concerns -what a human being ought to be
- An individual can distinguish between herself/himself and her/his environment and is inherently capable of taking responsible decision and learning effectively
- A child is capable of learning. Let it learn with love and peace (without any external pressure).
- Human beings possess the power or potential of solving problems through reasons courage, reason vision and human virtues.

### 2.7.1 Concept of Humanistic Approach to Learning

The term 'humanistic' originates from 'humanism' which has been derived from the Latin word 'Homo' means 'human being'. Thus, literally speaking humanism is the philosophy in which the human being occupies a central place. The humanistic approach makes use of creativity, belongingness, self-development, co-existence, mental health, values, etc. It is comparatively a new approach to learning.

### 2.7.2 Characteristics of Humanistic Approach to Learning

The important characteristics of the humanistic approach are given below:

- It is concerned with the welfare of all human beings.
- This approach emphasises on learning in natural environment of human love, peace cooperation, freedom, equality rather than of physical values, money, wealth, etc.
- It believes in co-existence.
- It considers the best learning as based on truth, good and beautiful.
- It believes that learning becomes effective when is need-based.
- Its emphasis is on learning at the higher level i.e. self-transcendence and self-actualization.
- Learning is experience-based.
- It emphasises on self-motivation for better learning.

- To increase the learner’s self-direction and independence.
- It helps learners take more responsibility for determining what they are learning.
- It increases learner’s reactivity.
- It develops an interest in the arts.
- It fosters curiosity.

### 2.7.3 Contribution of Psychologists Towards Humanistic Psychology

In the latter half of the twentieth century, it was felt that both psycho-analysis and behaviourism tried to describe the human being to their best, however, both have failed to study the human being as ‘human being’. In the year 1961, a **Journal of Humanistic Psychology** was published which made it clear that humanistic psychology addresses such issues as individual’s needs, creativity, belongingness, self-development, self-actualization, freedom, mental health, values, responsibilities, etc. Individualism, existentialism, empiricism and culturalism, etc. are different landmarks in this approach. Thus, humanistic psychology includes human beings as well as their total capacities, characteristics and potentialities.

Maslow has described the existentialist psychology, which indicates that the lacunae and shortcomings of an individual succeed in maintaining its existence. He named these lacunae and shortcomings ‘needs’ and listed different types of needs, on the fulfillment of which the individual exists.

Maslow has analyzed five types of needs as given below:



Fig. 2.1: Maslow’s Hierarchy of Needs

These needs are presented in a sequential order, known as the hierarchical model of needs. According to Maslow, people learn to satisfy these needs depending upon the individual’s experience, exposure, etc.

According to him, a highly developed person (self-actualized person) develops the following characteristics:

- S/he understands the relationship between natural and realities. Identifies his/her responsibilities and work accordingly.
- S/he believes in the present and not in the past or future.
- S/he loves others and has faith in democratic principles.
- S/he makes use of his/her creativity for the welfare of society.

Moslow advocated three methods of learning - subjective, objective, and interpersonal. The subjective method includes self-experiences or internal experiences, the objective method includes external experiences based on reasoning and logic and the interpersonal method includes the description of other people based on observation. All the three methods are linked to each other. However, humanistic psychology puts more weight on the third approach i.e. interpersonal.

Carl Rogers was another humanistic psychologist who has described 'self', 'becoming', 'experiencing' and 'concepts of humanistic approach' on the basis of subjective as well as objective factors. We can divide his theory into two parts: concept and process.

**Concept:** The main concept in his theory are - experience field, self-ego-ideal, real ego, congruence, incongruence and self-actualization.

**Process:** The process includes - barriers in the psychological development, relationship between individual and society, emotions and learning.

According to Roger's theory, learning in an individual takes place through its interactions with the external environment based on its internal experiences. Therefore, different individuals have different types of interactions and learning. This type of reaction goes on between activity and it aims the human being and his/her values, the human being and his/her previous experiences the human being and his/her self, etc. When this reaction remains positive as per his/her internal self, assimilation takes place and relationship exists. S/he becomes a better learner, a better human being and a well-adjusted person.

#### 2.7.4 Educational Implications

This approach recommends such educational reforms like open schools, ungraded classes, free schools, etc. The following are the main implications of the humanistic approach to the learning process.

**Place of the child in teaching-learning:** This approach believes in 'child-centered-education'. Therefore, it emphasizes on **reach**, **touch** and **teach** the child according to his nature, interests, aptitudes, etc. The teacher should assess a student's attitude, aptitude, potentialities, abilities, level of aspiration, his/her social, emotional, intellectual, physical, aesthetic development and mental health and should plan his teaching activities accordingly.

**Emphasis on individuality:** According to this approach, a human being is a wonderful creation. S/he has his/her own individuality, which should be respected and developed through education. Individual differences should be respected and internal virtues of individual be developed.

**Understanding the child:** According to the humanistic approach, we should know our learner: their interest, personality, capabilities and background

environment and use teaching methods and contents accordingly. The important humanistic principle of education given by this approach is ‘first, understand the child and then teach’.

**Method of teaching:** In this approach, the methods of teaching are developed based on psychological principles. Active learning is more emphasised. Learner’s readiness, mental set and motivation are considered as basis for deciding the method of teaching to be used.

**Discipline:** This approach emphasises on self-discipline and self-control.

**Place and role of Teacher:** This humanistic approach recognizes the teacher as a guide, friend and helper of the learners in their learning. The teacher is considered as the milestone in the journey of total development of the child.

Humanistic approach is a democratic approach, which recognizes ‘child’ and advocates the providing of a rich environment with a view to have its all-round development.

Besides, there are some more strong points in favour of this approach to learning:

- Teachers should thoroughly understand their subject-matter and make wise use of research-demonstrated principles of motivational learning. They must understand themselves as an important teaching aid.
- Teachers should keep in mind that learners bring their total selves to class. They bring heads that think, They bring values that help them to filter what they see and hear. This brings the unique learning styles among the students.
- Teachers must know that learners may be different in learning experiences.
- To encourage the learners to think and get involved in abstract discussion.
- A series of questions should be brought up and discussions should be started actively or passively in the classroom. So that learners may give suggestions freely and run the classroom democratically.
- The teachers should help the learners to decide for themselves who they are and what they want to be. The learners can decide for themselves. They have a conscious mind that enables them to make choices. Through their capacity to make choices they can at least have a change at developing the sense of self-necessary for productive lives.
- Teachers should understand the learner’s point of view. The attempt is to see the world as the student sees it, accept it as truth for him/her and not to force him/her into changing.
- Good teaching is best done through a process of helping learners explore and understand the personal meanings.

### 2.7.5 Limitations of Humanistic Approach

Like other approaches to learning, the humanistic approach to learning has been limitations. Important of them are as follows:

- It seems like too much commonsense and too little like science.
- It makes hard to identify humanists and non-humanists.
- It totally depends upon the thinking of one’s individual not others.
- It does not believe in passive listening.

- It is based upon a native type of phenomenology only.
- It is impossible to recognize an authentic person.
- It is difficult in verifying conceptual conclusions.
- It is known as open rather than a closed system of education.
- It is difficult to define simple religious optimism or emphasizing the power of positive thinking.
- It is difficult to accumulate objectively verified knowledge.

**Check Your Progress 3**

**Notes:** a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

1) What is the role of ‘needs’ in the humanistic approach?

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2) How is ‘self’ important in the humanistic approach?

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3) How is ‘child-centred education’ an epitome of the humanistic approach?

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**2.8 LET US SUM UP**

In this unit, we have discussed in brief the meaning of approaches to learning, and distinguished it from method and mode. Then, we tried to describe two types of approaches – deep approach and surface- approach.

Under the behaviouristic approach we have studied its basic tenets, characteristics and the concept of behaviourism. Pavlov’s classical conditioning and Skinner’s

operant conditioning theories have been described in brief to understand its main concepts and limitations. You have also studied educational implications of the behaviouristic approach to learning.

Under the cognitive approach to learning, you have studied tenets, important concepts like differentiation, generalisation and restructuration. You have also studied the Jean Piaget's cognitive approach to learning and its process like assimilation, accommodation, equilibration and adaptation. A brief introduction of social learning theories is also given. Details are in next units.

Similarly, under the humanistic approach, we discussed its basic tenets and described the meaning of humanism in relation to the humanistic approach. In the latter part the important characteristics of the humanistic approach have also been presented. We have also tried to present the contributions of various psychologists towards humanistic psychology and described the main theme of theories given by various humanistic psychologists like Maslow, Carl Rogers. At the end of the unit, we have given the limitations of this approach and also discussed the important educational implications which can be drawn from the humanistic approach to learning.

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## **2.9 UNIT-END EXERCISES**

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- 1) Give an article from any journal to two groups of learners and ask them read and be ready to answer the questions on it. When they complete the reading, ask some specific questions on the content discussed in the article. On the basis of answers, analyse, categorise and classify students as the deep learners and the surface learners.
- 2) Take any topic of your interest and try to identify the process of differentiation integration and restructuration of the cognitive approach.

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## **2.10 REFERENCES AND SUGGESTED READINGS**

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Chauhan, S.S. (1988): *Advanced Educational Psychology*, Vikas Publications, New Delhi.

Kulshrestha, S.P. (1994): *Assessing the Non-Scholastic Behaviour of Learning*, Association of Indian Universities, New Delhi.

Mathur, S.S. (1994): *Educational Psychology*, Loyal Book Depot, Meerut.

Sharma, K.N. (1990): *Systems, Theories and Modern Trends in Psychology*, H.P.B. Agra.

Entwistle, Noel (1985): *New Directions in Educational Psychology – Learning and Teaching*, TheFalmer Press, London & Philadelphia.

Gredler-Bell, E. Margaret (1986): *Learning and Instruction: Theory and Practice*, MacMillan Publishing Company, New York, Collier MachMillan Publishers, London.

Woolfolk, E. Anita (2013): *Educational Psychology*, Prentice Hall International (UK) Limited, London.

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## 2.11 ANSWERS TO CHECK YOUR PROGRESS

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- 1) Programmed instruction is based on the concept of “immediate feedback”. Immediate feedback is a form of response which is rewarding. Thus by rewarding, a learner is motivated to attempt a question. Therefore, the instruction of a learner is programmed on the basis of her/his pace to learn for immediate feedback.
- 2)
  - i) The cognitive approach shall be useful in problem solving. The perception of the problem involves observation, identification, assimilation, and restructuring. The cognitive approach involves all these and much more.
  - ii) Perceptions are vital in forming mental maps and links between problems and their solutions. The perception of the learner is processed through differentiation, generalisation and restructuring. This is useful in developing clear learning of the environment in order to solve problems and develop understanding about reality.
- 3)
  - i) The humanistic approach is based on the individual’s specific learning conditions and requirements. Understanding the need of individuals is the first step towards fulfilment of learning objectives. The humanistic approach focuses an individuality of the learner and hence considers individual learners’ need in designing instructional activities.
  - ii) In the humanistic approach, self is important in understanding the relationship between nature and realities. It identifies learner’s responsibilities and work accordingly. A person becomes a better learner, a better human being and a well-adjusted personality.
  - iii) The learner according to this approach is always at the receiving end. There is rather a dynamic interaction between the learner and the teacher. The focus always remains on the method and patterns that are most suitable to learner.