Chapter 6 - Learning

Question 1:

What is learning? What are its distinguishing features?

Answer:

Learning can be defined as any relatively permanent change in behaviour or behavioural potential produced by experience. Changes that occur due to practice and experience, and are relatively permanent, are a component of learning.

Its distinguishing features are:

(i) Learning always involves some kind of experience. For instance, a child gets lost at a place on leaving the hands of the parents, would learn not to leave the hand of elders the next time.

(ii) Behavioural changes that occur due to learning are relatively permanent and are different from temporary behavioural changes caused by habituation, drugs or fatigue. For example, feeling tired after studying is a temporary change and does not involve learning.

(iii) Learning is an inferred process that involves a series of psychological events. It is also different from a performance.

Question 2:

How does classical conditioning demonstrate learning by association?

Answer:

Classical conditioning demonstrates learning by association as one stimulus signifies the possibility of the occurrence of another stimulus. Unconditioned stimulus and response are gradually conditioned. For example, in the experiment conducted by Ivan P. Pavlov on the dog, a bell was rung after which food was served to the dog. After some days, no food was served after the ringing of bell, but the dog still salivated to the sound of it and thus, associated the bell with the food. The association resulted in the acquisition of the new response by the dog, i.e. salivation to the sound of bell. In this case, the bell was a conditioned stimulus and saliva secretion was a conditioned response.

Therefore, in classical conditioning, one stimulus signifies the possible occurrence of another stimulus.

Question 3:

Define operant conditioning. Discuss the factors that influence the course of operant conditioning.

Answer:

Operant conditioning refers to the conditioning of behaviours and responses that are under the control of animals and human beings and are emitted voluntarily by them. The behaviour is learned, maintained or changed through its consequences called reinforcers. These refer to a stimulus or

event that increases the probability of the occurrence of the response. The factors that influence the course of operant conditioning are as follows:

- **Type of reinforcements** − Positive reinforcement involves pleasant consequences that satisfy needs. Negative reinforcement involves unpleasant and painful consequences that lead to learning of avoidance.
- **Number and quality of reinforcements** − The course of operant conditioning is accelerated by increase in number, amount and quality of reinforcements.
- **Schedule of reinforcement** − Continuous reinforcement elicits a desired response every time during a trial. Intermittent reinforcement elicits responses only intermittently.
- **Delay in the delivery of reinforcement** − It results in a poor level of conditioning and performance.

Question 4:

A good role model is very important for a growing up child. Discuss the kind of learning that supports it.

Answer:

A good role model is very important for a growing up child as children learn social behaviour and acquire personality characteristics by observing and emulating adults. It is a form of learning that takes place by observing others. Hence it is called modeling which is a form of observational learning. The observers acquire knowledge by observing the model. Similarly, children learn various personality characteristics through observational learning. For instance, traits like aggressiveness, pro-social behaviour, courtesy, politeness, diligence and indolence are acquired through observational learning.

A negative role model would lead to the development of negative personality while a positive role model would lead to the development of good personality of the child.

Question 5:

Explain the procedures for studying verbal learning.

Answer:

The following are the procedures for studying verbal learning:

(i) Paired Associates Learning

- This method is used to learn foreign languages. A list of paired-associates is prepared and the first word is used as a stimulus, while the second word is used as a response.
- Members of the each pair may be from the same language or two different languages.
- The learner is first shown both the stimulus-response pairs and instructed to remember and recall the response after the presentation of each stimulus term.
- This continues until the participant remembers all the response words without any error.

- The total number of trials taken to reach the criterion becomes the measure of paired associates learning.

(ii) Serial Learning

- This method is used to find out the ways through which participants learn the lists of verbal items and the processes involved in it.
- The participant is presented with a list of nonsense syllables, most familiar or least familiar words and interrelated words. Then, he/she is required to produce the items in the same serial order.
- During the first trial, the participant is shown the first item after which he/she has to produce the second item. If the participant fails to do that then the second item is presented and the participant has to produce the third.
- The learning trials continue until the participant remembers all the items in the given order.

(iii) Free Recall

- The participants in this method are presented with a list of words to read and speak out. After this, they are required to remember the words in any order.
- This method is used to study the kind of organisation of words made by the participants in order to store them in memory.

Question 6:

What is a skill? What are the stages through which skill learning develops?

Answer:

A skill is referred to the ability to perform some complex tasks smoothly and efficiently. It consists of a chain of perceptual motor responses or a sequence of stimulus-response associations.

The stages of development of skill learning are as follows:

(i) Cognitive − The learner has to understand and memorise the instructions to perform a task. In this, every external instruction has to be kept in the consciousness.

(ii) Associative − Different sensory inputs or stimuli are linked with appropriate responses. Further, errors decrease, time taken is reduced and performance improves with increase in practice.

(iii) Autonomous − The attentional demands of the associative stage decrease and interference of external factors is reduced. Skilled performance attains automaticity with minimal demands on conscious effort.

Question 7:

How can you distinguish between generalisation and discrimination?

Answer:

The distinguishing features between generalisation and discrimination are as follows:

Generalisation refers to the phenomenon of responding similarly to similar stimuli. It represents the occurrence or elicitation of learned response by a new stimulus. For instance, in the absence of mother, a child is able to find the jar of chocolates. Furthermore, generalisation occurs due to failure of discrimination.

Discrimination on the other hand is a response caused by difference in stimuli. Discriminative response depends on the discrimination capacity of the organism. For example, a child who is scared of all men with moustache may not be scared of clean-shaved men.

Question 8:

How does transfer of learning takes place?

Answer:

Transfer of learning refers to the effects of prior learning on new learning. It is considered to be positive when the earlier learning facilitates current learning. On the other hand, it is considered to be negative if the new learning is retarded. It takes place through general transfer and specific transfer.

- General transfer implies that prior learning predisposes one to learn another task in a better manner. The learning of one task warms-up the learner to learn the next task more conveniently. This warm-up effect lasts over one session of learning.
- Specific transfer means that every kind of learning consists of a series of stimulus-response associations. It means the effect of learning of earlier task on learning of second task. This kind of transfer depends on the similarity or dissimilarity between the initial learning tasks on the second task.

Question 9:

Why is motivation a prerequisite for learning?

Answer:

Motivation is a prerequisite for learning because it energises the organism to act vigorously in order to attain some goal. It provides a purpose to actions that continue till the goal is attained and the need is satisfied. It also provides impetus to the need for survival and growth that is essential for learning. Thus, an organism works harder when the motivation is high. For example, a student studies in order to achieve a good result. This is because the student is motivated towards a good result for which s/he learns to achieve a specific goal.

Question 10:

What does the notion of ‘preparedness for learning’ mean?

Answer:

The notion of 'preparedness for learning' means that an organism can learn only those associations that it is genetically prepared to acquire. It implies the biological constraints upon learning due to sensory capacities and response abilities. This is because the kinds of S-S or S-R learning an organism can acquire, depends upon the associative mechanism it is genetically endowed with. The dimension of preparedness consists of learning tasks that are easy for members of particular species to those tasks that they are unsuited to learn. Therefore, while on one hand preparedness for learning is a dimension where the members are prepared to learn tasks, on the other hand members are not prepared for the learning task. In the middle lie those learning tasks whereby people are neither prepared, nor unprepared.

Question 11:

Explain the different forms of cognitive learning?

Answer:

The different forms of cognitive learning are:

(i) Insight Learning

- It refers to the process through which the solution to a problem suddenly becomes clear.
- The problem is presented after which a period of time follows without apparent progress and finally a solution suddenly emerges.
- The solution can be repeated immediately the next time the problem is confronted.
- Learning is not a specific set of conditioned associations between stimuli and responses but a cognitive relationship between a means and an end. Thus, it can be generalised to similar problems.

(ii) Latent Learning

- A new behaviour is learnt but not demonstrated until the reinforcement is provided for displaying it.
- Tolman explained it with an experiment on rats wherein the rats were grouped into two, and one group was given food at the end of maze, while the other group was not given any food. However, after being reinforced these rats ran through the maze as efficiently as the group that was given food.

Question 12:

How can we identify students with learning disabilities?

Answer:

The students with learning disability have some common symptoms through which they can be identified. These are as follows:

(i) They have difficulty in reading and writing letters, words, phrases and speaking. They suffer from hearing problems without any auditory defect.

(ii) They have disorders of attention and get distracted easily leading to hyperactivity.

(iii) They have poor space orientation and inadequate sense of time. They also have difficulty in getting oriented to new surroundings and feel lost. They get confused in following directions and misjudge right, left, up and down.

(iv) These children have poor motor coordination and manual dexterity.

(v) They are unable to understand and follow oral directions.

(vi) They misjudge relationships as to the classmates who are friendly and the ones who are not and are unable to comprehend various body languages.

(vii) They show perceptual disorders which includes visual, auditory, tactual and kinesthetic misperception.

(viii) Many learning disabled children suffer from dyslexia and fail to copy letters and words and do not learn to organise verbal materials.