



Question 5. Explain the procedures for studying verbal learning.

Answer: Verbal Learning: The process of learning to respond verbally to verbal stimulus, which may include symbols, nonsense syllables and lists of words.

Procedures for studying verbal learning are:

1. Paired—Associated learning:
  - This method is similar to S-S conditioning and S-R learning.
  - When the list of paired-associates is prepared, the first word of the pair is used as the stimulus and the second word as the response.
  - The first members of the pairs (stimulus term) are nonsense syllables (consonant-vowel-consonant), and the second are English nouns (response term).  
e.g.: Stimulus = Response  
Gen = Loot  
Dem= Time  
Div= Lamp
  - The learner is first shown both the stimulus response pairs together and is instructed to remember and recall the response after the presentation of each stimulus term. After that a learning trial begins.
  - Trials continue until the participant gives all the response words without a single error.
2. Serial learning:
  - First, lists of verbal items, i.e. nonsense syllables, most familiar or least familiar words, interrelated words etc. are prepared.
  - In serial learning the participant is presented the entire list and is required to produce the items in the same serial order as in the list.
  - Learning trials continue until the participant correctly anticipates and recall in the given order.
3. Free Recall:
  - In this method, participants are presented a list of words, each word is shown at a fixed rate of exposure duration.
  - Immediately after the presentation of the list, the participants are required to recall the words in any order they can.

This method is used to study how participants organize words for storage in memory.

Studies also indicate that the items placed in the beginning or end of the lists are easier to recall than those placed in the middle which are more difficult to recall.

Question 6. What is a skill? What are the stages through which skill learning develops?

Answer: A skill is defined as the ability to perform some complex task smoothly and efficiently, e.g.: car driving, writing etc.

Skill consists of a chain of perceptual motor responses or as a sequence of S-R associations, e.g.: Movements of legs, feet and toes etc.

According to Fitts skill learning develops through three stages:

1. Cognitive Phase: In cognitive phase of skill learning, the learner has to understand and memorise the instructions.
  - The learner has to understand how the task has to be performed.
  - In this phase every outside cue instructional demand, and one's response outcome have to be kept alive in consciousness.
2. Associative Phase:
  - Different sensory inputs or stimuli are to be linked with appropriate responses.
  - As the practice increases, errors decrease, performance improves and time taken is also reduced.
3. Autonomous Phase: two important changes take place in performance.
  - The Attentional demands of the associative phase decreases.
  - Inference created by external factors reduces. Finally, skilled performance attains Automaticity with minimal demands of - conscious effort.

Question 7. How can you distinguish between generalisation and discrimination?

Answer: Generalisation:

- Pavlov noticed that when a C.S - C.R. bond has been established by conditioning, a stimulus which is similar to the C.S can produce the same response and he called this stimulus Generalisation, or in other words Generalisation occurs due to similarity.  
e.g. If the dog is conditioned to salivate to tone, it will salivate to any type of tone , like electric bell, worship bell, college bell, buzzer and other sounds.
- Stimulus Generalisation in conditioning happens usually more in childhood particularly when the child has not developed the capacity to differentiate between two stimuli.  
For example; During infancy the baby considers every woman to be his mother.

Discrimination:

- Discrimination is the process of learning to make one response to one stimulus and another response - or no response to another stimulus.  
e.g: discrimination can be obtained in classical conditioning by pairing one stimulus (the CS+) with an unconditioned stimulus and never pairing another stimulus (the CS) with the unconditioned stimulus.
- Discrimination is a response due to difference or in other words discriminative response depends on the discrimination capacity or discrimination learning of an organism.

Question 8. How does transfer of learning takes place?

Answer: Transfer of learning refers to the way in which we might transfer skills learned in one situation to a second, related situation. Thus, learning to play tennis may introduce a range of coordination and racket skills that would then transfer to similar games such as squash.

- It refers to the effects of prior learning on new learning.
- Transfer is consider to be positive if the earlier learning facilitates current learning. If new learning is a related then it is consider to be negative transfer.
- Absence of facilitative of retarding effect means zero transfer i.e. earlier learning has no effect on later learning.

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