



Notes

LEARNING

It is expected that by now all of you can define the term Psychology and the related concepts like Attention and Perception. Your understanding about the various concepts is possible because you have been learning about all these in your previous lessons. Is it possible for a four year old child to read and write in the same manner as you do? Probably not, because the young child has not started reading and writing. However, the same child is able to communicate his/her needs to the parents and get his/her favourite toy. This is possible because by four years the child has learnt how to get what he/she wants. Learning is an indispensable part of every beings life. Not only humans but animals also surprise us the way they learn and acquire skills.

It is our past knowledge only that makes us adapt to the surrounding environment. It is learning that helps us carry forward our traditions and customs. You are able to comprehend what is written because it is the result of your learning over the years. Whatever we do comes out of our learning. However, all the more important is how we learn? This lesson focuses on developing an understanding about learning and the process of learning as well as various other aspects that are related to learning.



LEARNING OUTCOMES

After studying this lesson, learner :

- explains the nature of learning;
- elaborates the different types of learning;
- describes the ways in which learning gets transferred; and
- applies various principles of learning on one's own.

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7.1 NATURE OF LEARNING

Learning is “a process that leads to change, which occurs as a result of experience and increases the potential for improved performance and future learning” (Ambrose et al, 2010, p.3). Let us understand with the help of some examples.

- A child cleans the room after playing and the mother hugs him/her
- You do well in your assignment and this results in appreciation
- You went to the market and ate something that resulted in severe abdominal pain.
- You bring a basket of fruits from the market and realize that all the fruits at the bottom of the basket are rotten.

What according to you is the probability that these behaviours will be repeated in future?

While if we consider the first two situations then chances are that the behaviours will be repeated, whereas, the other two events indicate that we will avoid repeating behaviours where we feel being hurt or cheated.

You can have a lot of other examples from your daily life where you experience such things and you will realise that the behaviours which bring us pleasure are usually repeated and behaviours which bring us pain in any manner are avoided.

Think about a mistake that you made in the past and do not repeat the same in the future.

We acquire most of our behaviours through the process of learning. The desirable behaviours with effective outcomes are repeated and the undesirable behaviours with ineffective outcomes are avoided. (By desirable behaviour we mean anything that would bring in positive results).

So, learning is a change in behaviour based on positive and negative outcomes.

“Learning is any relatively permanent change in behaviour that results from practice.”
Weiss (1990)

The above discussion focuses on the fact that experience is the key feature of learning. In order to learn something, practice and experience are important. This is the process that we have been following for learning. Whether it is reading, writing, talking in public, making food or dancing among other things.

**ACTIVITY**

When you go to attend your Personal Contact Programme classes observe the possible reaction of the tutor when learners raise questions in the class:

The possible reactions can be:-

Your tutor:-

- listens patiently and answers the questions
- gets irritated and refuses to answer
- encourages learners to raise more questions
- scolds the learner for raising the question and disturbing the class
- appreciate the learner and asks him to wait till the topic is finished
- gets annoyed to the extent that ask the learner to leave the class

Make a note of the impact of different reactions of tutor on learner's behaviour of raising questions in future.

It is important for you to know that any change in behaviour that occurs in the absence of practice or experience does not qualify as learning. There are some behaviours that are exhibited not as a result of experience and practice but they occur because of development and maturation. For example, how an infant learns to sit or crawl. These developmental changes are a result of healthy development of the nervous system, spinal cord and brain.

Apart from maturational changes, there are instinctive behaviours in animals that just happen as a result of species-specific behaviour, for example, spiders making a web. Such behaviours do not require experience and practice.

Hence, by now it is clear to you that the change in behaviour that occurs as a result of development, maturation and instincts cannot be called learnt behaviour.

Now let us try to understand learning from a different perspective.

Can you recall any situation from your life where you realized that it would be difficult for you to adjust to the surrounding environment without learning a few skills?

According to B.F. Skinner learning is defined as a process of progressive behaviour adaptation".

Many of us today have started relying on the use of information and communication technology (ICT) for a lot of things. Your self-learning material is available online, you

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can watch your lectures on SWAYAM (MOOCs) or SWAYAM PRABHA channel. Moreover, you do not have to stand in long queues to deposit your fees. This is possible because all of us have learnt to work with the computer system and make use of online available resources. We can have many more examples from our daily life that makes it clear that in order to adapt to the environment we are progressively changing our behaviours, whether it is a child who first learns to speak and then show marked changes in the ability to communicate, a person who has to learn to work on the computers because it is his/her job requirement or our ability to deal with the social world around us through social networking sites, learning to adapt with a peer group, current fashion trends, adapting to technology and many more.

Hence, learning also helps us in acquiring new knowledge and adapting to the environment.



INTEXT QUESTIONS 7.1

1. Define the concept of learning.
2. Differentiate between learning and maturation.
3. What's the difference between instinctive behaviour and learning?

7.2 DIFFERENT TYPES OF LEARNING

Do you remember that in the beginning of the lesson, it was mentioned that not only humans but animals also surprise us with the way they learn and acquire behaviours. Like many of us, psychologists, in the early part of the 19th century were also intrigued by the way animals learn. There were many experiments that were conducted to understand the phenomenon of learning by experimenting on animals. Although the experiments were conducted on animals however these experiments have major implications even today in Behavioural Psychology with human subjects. In this section we will talk about the early learning experiments by Pavlov and Skinner, as well as, we will also talk about observation learning, verbal learning and skill learning.

7.2.1 Classical conditioning or Learning through Association:

Ivan Petrovich Pavlov(1890-1936) was a Russian physiologist who was studying the digestive system of dogs. He observed that his dog, which was salivating for food, also started salivating whenever he saw the laboratory assistant bringing food for him.

This made Pavlov think that the dog had made an association between the presence of a lab assistant and food.

After this casual observation, Pavlov conducted a series of experiments to study more about the dog's tendency to make associations between unrelated circumstances and their tendency to respond. But before we move on to understanding the classical conditioning phenomenon let us understand the meaning of the following terms with reference to Pavlov's casual observation:



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1. **Unconditioned stimulus (UCS):** it is anything in the environment that has the capacity to elicit a natural/automatic response: food presented to the dog
2. **Unconditioned response (UR):** it is a natural response: salivating to food
3. **Conditioned stimulus (CS):** It is anything that always happens with unconditioned stimulus and acquires the properties to elicit a response: in the above discussion the presence of lab assistant becomes an indication of food for the dog
4. **Conditioned response (CR):**-It is an automatic response that is established by training to an ordinary neutral stimulus: with reference to the above discussion salivating whenever the dog sees or hears the lab assistant coming to the lab.

Classical conditioning: Now when you are familiar with the above discussion let us understand the classical conditioning procedure in three phases.

Phase I

Before conditioning: In his experiments, Pavlov initially presented meat powder (the unconditioned stimulus) to his dogs which elicited saliva (the unconditioned response) which is a natural response.

Phase II

During conditioning: After a few trials just before presenting the food, he started ringing a bell (neutral stimulus) and then presented food. Pavlov noticed that initially the dog was unaffected by the bell and was giving a natural salivating response to food (the unconditioned response).

Phase III

After conditioning: After a number of such trials, the continuous pairing of bell and food made the dog to respond to bell i.e. the dog now started salivating to bell (conditioned response). This means that the bell now has become a conditioned stimulus

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which is capable of eliciting the salivary response in the dog.



Unconditioned Response (Salivation)



Unconditioned Stimulus (Food)



No Response



Neutral Stimulus (Bell Ringing)



Unconditioned Response (Salivation)



Neutral Stimulus (Bell Ringing)



Unconditioned Stimulus (Food)



Conditioned Response (Salivation)



Conditioned Stimulus (Bell Ringing)

Figure 7.1

The classical conditioning procedure can be explained as follows:

Table 7.1

UCS (food)	<input type="checkbox"/>	UCR (saliva)
NS (Bell) + UCS (food)	<input type="checkbox"/>	UCR (saliva)
After repeated pairing of CS (Bell) + UCS (food)		
CS (conditioned stimulus)	<input type="checkbox"/>	CR (conditioned response)

**ACTIVITY**

You are sitting quietly in the room and suddenly someone bangs the door and you feel startled.

You are sitting quiet in the room and someone who is wearing a very strong perfume bangs the door and you feel startled. The same set of events keeps happening every day. After sometime whenever you find the same strong fragrance of the perfume you will be startled before the person bangs the door.

Try and find out UCS, UCR, CS and CR in the above two examples

B. Principles in Classical Conditioning**Generalization**

A child who fears a white dog would also be scared when sees a white furry toy. This is called generalization. This means that the child is generalizing all the white looking furry things to be a scary dog. In a classical conditioning experiment, during the course of conditioning the dog which is trained to give a conditioned response to the bell also learns to give the same conditioned response to the buzzer because of similarity in tone or pitch. However, generalization can be overcome through training to discriminate between similar things. This is called **discrimination**. In the above example, the dog can be trained to differentiate between a bell and buzzer by accompanying food only with a bell and not with a buzzer.

Extinction

In classical conditioning, Pavlov observed that the dog stopped responding to the bell when the experimenter was ringing the bell but not giving food. Initially, the dog was responding to the bell anticipating that the bell is a signal for food, but after a number of trials, the bell was not paired with food, so the dog stops responding. This is called



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extinction of behaviour. This means that initially learnt behaviour is forgotten if the conditioned stimulus occurs in the absence of the unconditioned stimulus.

Spontaneous recovery

Do you think that once extinction occurs it can never be recovered? **No**, it is not so. In the above-given example of the dog if the same procedure of classical conditioning is repeated again (see table 7.1) then once again conditioning can be acquired.

C. Factors determining classical conditioning

Classical conditioning can occur under two conditions: **forward conditioning procedures** as well as **backward conditioning procedures**.

Forward conditioning:-this means that the conditioned stimulus occurs prior to the unconditioned stimulus. The forward conditioning can take place in three ways:

1. Simultaneous conditioning: this means that the conditioned stimulus and unconditioned stimulus (food and bell) occur (are given) at the same time.
2. Trace conditioning: this occurs when the conditioned stimulus is presented first and is stopped before the presentation of the unconditioned stimulus i.e. a trace (not the actual CS) of the CS is left before the onset of the US.
3. Delayed conditioning: it occurs when the CS is presented and is not removed until the US appears.

Backward conditioning:-What will happen if you are eating your favourite meal and then a bell is rung and you have to stop eating. This is called backward conditioning and occurs when the US is presented first and the CS appears afterwards.

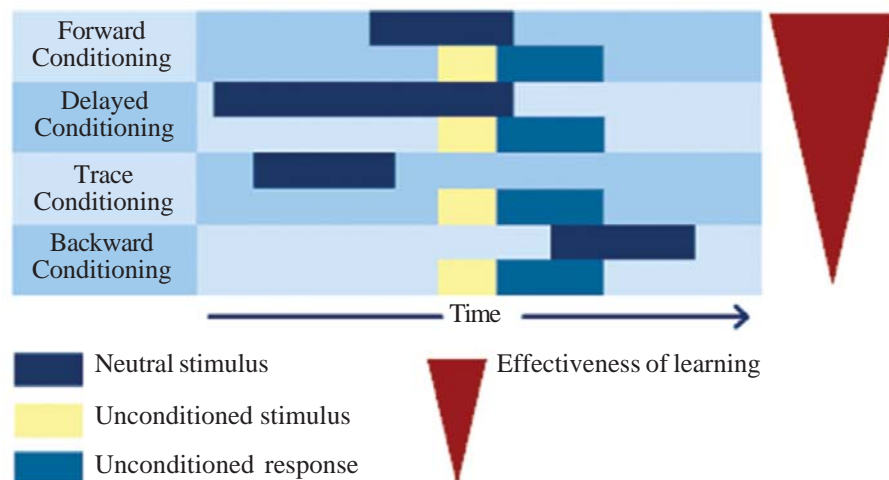


Figure 7.2 Respondent Conditioning

**ACTIVITY**

You can do one experiment to understand classical conditioning. Try giving candies to any small child in your family/locality every time you meet him/her. You will notice that the child will run towards you whenever he/she sees you, expecting that you will give candies.

7.2.2 Operant conditioning

B.F. Skinner (1938) developed the theory of operant conditioning. It is also known as instrumental conditioning. Operant conditioning principles are based on the assumption that the probability of doing something depends upon the consequence that follow the behaviour.

Think for a moment if you have doubt during your Personal Contact Programme (PCP) and you raise a question to clear your doubt but someone laughs at you what will happen?

Skinner made a chamber in which a hungry rat was placed and there was a lever attached in the chamber which upon pressing could release food for the rat. This chamber was popularly known as the Skinner box.

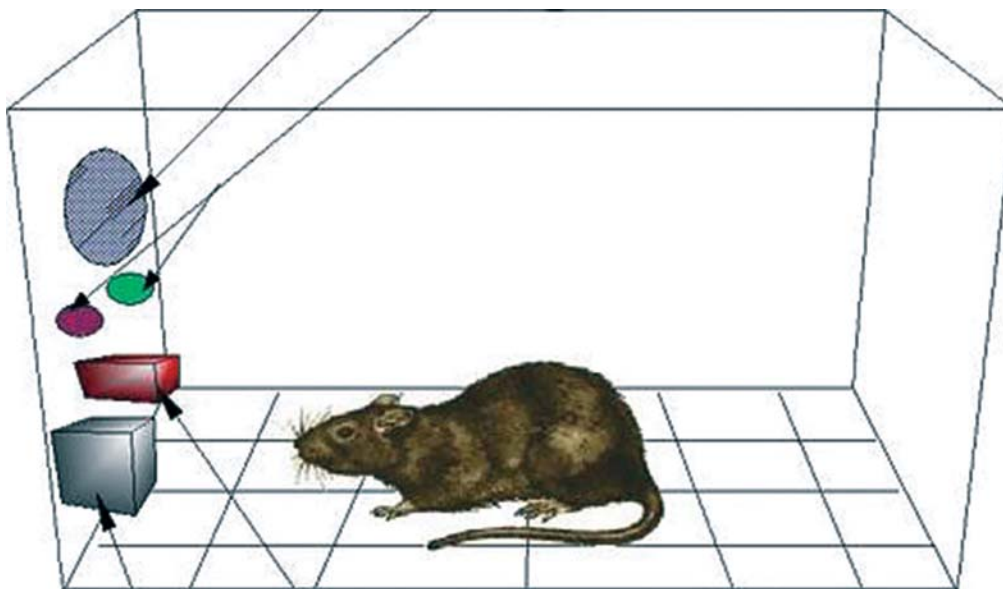


Figure 7.3

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Initially, when the rat was placed inside the box it wandered here and there in search of food. When the rat was walking around the box it accidentally pressed the lever and got the food pellet. In the beginning, the rat could not realize how the food was released but after a few such trials, the rat learnt that pressing the lever would release the food pellet. This means that pressing the lever (**i.e. the behaviour**) was positively reinforced by releasing the food (positive consequences of behaviour).

In our real life too, we tend to repeat behaviours that bring us positive results and try to avoid behaviours that are not pleasant.

A. Basic processes in operant conditioning

Reinforcement:-Anything that strengthens a response or makes the behaviour more likely to occur.

There are different types of reinforcements that are given to strengthen the desirable behaviours and weaken the undesirable ones.

Positive reinforcement: Positive reinforcement increases the likelihood that the behaviour will be repeated in future.

For example, a child helps the mother in serving the food (behaviour) and in response to this the mother pats the child's back (positive reinforcement). The consequences i.e. (the pat) will increase the likelihood that the child will help the mother again in the future.

Negative reinforcement: Negative reinforcement also increases in strengthening a response or behavior by stopping, removing, or avoiding a negative outcome or aversive stimulus.

For example, you have an upcoming exam and instead of studying you are watching T.V., Your mother starts scolding you (negative reinforcement). In response to this, you switch off the T.V. and start studying (this is your behaviour). When you do this your mother also stops scolding (negative reinforcement is removed). This means that the negative reinforcement or aversive stimulus (mother's anger in this case) was removed after appropriate behavior (switching off T.V. and studying). The desired behaviour of you studying increases, to avoid scolding, which was the negative outcome.



ACTIVITY

Talk to parents having kids in the age range of 3-5 years and make a list of behaviours that parents modify with the help of reinforcements.

Other than positive and negative reinforcements, **punishment** in some circumstances can also help to modify the behaviours.

Punishment can have a positive as well as a negative response. Let us understand the following explanation:-.

Positive (Present negative reinforcer):- This means that the undesirable behaviour leads to undesirable consequences.

For example, when a child plays for a long time and does not do homework the mother scolds the child.

Negative (Remove positive reinforcer):- In negative punishment, an undesirable behaviour leads to removal of rewards.

For example, a child who plays for a long time outside and does not complete homework on time is deprived of his/her favourite food.

B. Schedules of reinforcement:

During his experiments, Skinner also introduced the schedules of reinforcement. These are precise rules that are used to present reinforcers following a specified operant behaviour. The reinforcement schedules are introduced to strengthen and maintain the learnt behaviour.

Different schedules are:

1. **Continuous reinforcements:** The rat gets food every time it presses the lever. This means that continuous pressing of lever results in continuous reinforcement (food)

Other than the continuous schedules there are intermittent schedules that are based on the assumption that the reinforcement will be given **for only some** but **not for all the responses**.

2. **Intermittent schedules** can be understood in terms of **interval schedules and ratio schedules**



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A. Interval schedules means the time after which the rat would get the food.

For example, the rat gets food after pressing the lever for 10 minutes (i.e. based on the time interval).

B. Ratio schedules on the other hand are the number of lever pressing responses to get the food.

For example, the rat will get food only after pressing the lever 10 times (i.e., based on number of trials).

The further classification of intermittent schedules can be done in terms of fixed schedule conditions and variable schedules conditions. Let us understand with the help of following examples:-

i. Fixed interval schedules: The rat gets the food only after a fixed interval.

For example, no matter how many times the lever is pressed, the rat would get the food only after a fixed interval i.e. sometimes after 15 minutes, other times after 1 hour or so on.

ii. Fixed ratio schedules: This means that the rat would get the food only after a fixed number of lever pressing is done.

For example, the food pellet is released only after pressing the lever for five times.

iii. Variable interval schedules: This means that it is not sure how much time interval will it take to get the food pellet. Sometimes the rat would get the food after 15 minutes, other times after 10 minutes or so on.

iv. Variable ratio schedules: This means that it cannot be anticipated that after how many trials the rat would get the food. Sometimes after pressing 5 trials, and on some occasions after making 2 trials of lever pressing etc.

In real life too, for behaviour modification, the continuous reinforcement schedules are effective for establishing and strengthening a behaviour whereas the intermittent schedules are used for maintaining the established behaviour.

For example, if a child has acquired a habit of spitting on others, in order to make the child behave well i.e. to establish a response the parents need to give **continuous reinforcement** every time the child is exhibiting desirable behaviour.

To understand the **intermittent schedule**, consider that you are working in a company

and you get a salary after 30 days. This means that it is a fixed interval schedule. However, there might be a possibility that on some days you will work and on other days you would not put in much effort because you know that in any case salary is coming after 30 days' time. However, if performance-based perks are introduced other than the salary then you would be more motivated to work because it cannot be predicted when you will be rewarded other than your salary (variable schedules).

It is an obvious fact that **if a behaviour is never reinforced it would get extinct** whether it is a behaviour of asking questions in class or it is working in the company. The schedules of reinforcement are required to be introduced carefully to strengthen and maintain the desirable behaviours.

Observation learning or Social learning

Albert Bandura (1961) conducted experiments to show that children learn through imitating the behaviour of others. In his experiments, little children were exposed to aggressive and non-aggressive models. The children were made to sit individually in one corner of the room with the adult model and there were attractive toys in the room. The adult model sat near the other corner of the room where he /she played with the Bobo Doll. From his experiments, Bandura found that those children who saw an adult behaving aggressively with the Bobo Doll also behaved aggressively with the toys in another situation as compared to those children who saw a non-aggressive model not exhibiting as much aggression as their counterparts. Different researches have shown that violent television shows, movies, video games and music increases the likelihood of aggressive behaviour among those who are exposed to such shows. In Bandura's experiment, he also concluded that if the aggressive model was rewarded for the aggression then the children were more likely to imitate the aggression. This can be true for those who watch models on the T.V. being rewarded or appreciated for acting aggressively and as a result, such behaviour is imitated by the children who watch such shows.

Observational learning is influenced by the socio-cultural environment of the individual. Children imitate the behaviour of adults. The one whose behaviour is being imitated becomes the model.

For example, if a parent tells a child not to shout and while telling this the parent is shouting then the child will not follow what is being said but will learn what the child sees, in this case the child will learn to shout because he sees his/her model shouting (in this case the parent shouting).



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NOTE: In order to inculcate good habits in children the parents must exhibit those habits themselves in front of their children.

Think about the last time you were copying your model while behaving. Your model can be anyone who you think is influential, be it your parents, siblings, public figure, etc.

7.2.3 Cognitive Learning

Until now we learnt how the behaviour is learnt as a result of rewards and punishments or is influenced by the environment. The cognitive learning does not support the notion that behaviour is determined by whatever is presented to the organism. It believes that behaviour is very much influenced by the workings of the mind. There are two types of cognitive learning discussed here.

1. Insight learning
2. Latent learning

A. Insight learning experiment:

Wolfgang Kohler (1920) did a series of experiments with a chimpanzee named, Sultan to know how learning takes place as a result of insight. He placed the hungry Sultan in a cage with two hollow bamboo sticks. There was a bunch of bananas that were placed outside the cage that could not be reached without the help of the two sticks together. Initially hungry, the animal tried to catch the bananas with his hands but he could not, so he started playing with the sticks inside the cage. He could not realize in the beginning that two sticks can be joined together to reach the bananas. He tried to get the bananas using one stick at a time but he failed and became frustrated after trying for an hour. The animal gave up working to fetch the bananas and sat on one corner of the cage. After some time while playing with the two sticks he accidentally joined them together and got the insight that this long stick could help him in fetching the banana. He tried and got the bananas. Kohler insight learning experiments emphasize cognition and insight in bringing about a solution rather than the role of associations and consequences in learning.

A lot of times we work hard to solve our problems. However, failure leads to frustration. Sometimes we get an insight to the solution because even if we stop working our mind keeps working towards solving the problem.

Think of the last time it happened with you when you were stuck somewhere and after a rest period got an 'Aha' feeling of solving a particular problem.

B. Latent learning experiments

Tolman and Honzik, (1930) through their experiments demonstrated that learning can occur even in the absence of rewards. However, it will be exhibited only after appropriate reinforcement is given. To explain this they did maze learning experiments with rats.

There were three groups of rats who were required to run through a maze from the starting point to reach the goal in order to receive the food. The first group of rats received the food every time they ran the maze

The second group of rats did not receive the food for the first 10 trials even after they reached the goal point. However, from the 11th trial onwards they received the food every time they reached the maze.

The rats in the third group never received the food even after reaching the goal point. It was concluded that the second group of rats took less time to reach the goal after the 11th trial onwards because now they expected the reward would come. Though they were not reinforced in the beginning, that does not mean that they were not learning to walk through the maze.

It happens to us all the time. Our parents constantly teach us what to do and what not to do. We don't seem to notice it, but when the time comes, we act accordingly.

Suppose you every day go on the bus to your place of work and learn the route from home to work. However, you do not exhibit this knowledge until it is necessary for you to drive on the same route.

7.2.4 Verbal learning

You are able to read and understand the material which is in front of you. Aren't you? You listen to the news and understand what is happening around the world. You are able to express your feelings through the words you speak or write. This is what verbal learning is. Verbal learning is the skill of reading, writing, and understanding the written or spoken material. Through continuous practice and exposure to the verbal material we are able to develop this skill.. This is an amazing skill that as humans we have and this skill separates us from other animals.



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Psychologists conduct different types of experiments to understand verbal learning.

1. Paired associate learning: Pairing two words like milk and cat. The next time when the word milk is presented the respondent says cat.
2. Serial learning: In serial learning a list of words is given and the learner is asked to recall the list in serial order.
3. Free recall method: In free recall a list of words is presented and the learner has to recall the list without considering the serial order.

Non-verbal learning: Learning is not only limited to reading and writing. We also learn to behave if we start understanding facial expressions.

For example, if the child finds that the mother always frowns when the child misbehaves then the child will learn that misbehaviors results in the mother frowning (expression of anger) and he/she learns to behave well to avoid mothers anger.



INTEXT QUESTIONS 7.2

Match the following

- | | |
|---------------------------|------------------|
| 1. Operant conditioning | a. Insight |
| 2. Classical conditioning | b. Imitation |
| 3. Observation Learning | c. Reinforcement |
| 4. Verbal learning | d. Association |
| 5. Cognitive learning | e. Free recall |

7.3 TRANSFER OF TRAINING

Transfer of training refers to the ability to carry forward the experiences of one learning situation to another. Have you seen people in various cookery shows? They actually have not made all the dishes that they are required to make while in the show. However, the basic sense of cooking and their experience with cooking facilitates making new innovative dishes. This is known as transfer of training.

Though the prior knowledge and experience facilitate the new situation, however, on the other hand, there are times when we are not able to learn something because we get confused with what we have learnt in the past.

The transfer of learning/training can happen in three ways:

Positive transfer of training: This happens when the old learning facilitates the new learning situation. For example, you keep a dictionary while reading and this helps you to communicate more effectively in future.

Negative transfer of training: This happens when the concepts of the previous learning make it difficult to acquire new concepts because one gets confused.

For example, if a child learns the concept of 'After' and then learns the concept of 'Before' then the first learning might interfere with the second learning.

Think of an example when you found it difficult to learn a new concept because your previous experience was hampering new learning.

Neutral transfer of training: There are different learning situations that are not related to each other at all and hence do not either facilitate or hamper new learning situations. This is called a neutral transfer of training.

For example, how you cook is not related to how you drive a vehicle.



INTEXT QUESTIONS 7.3

1. Learning the course in 'History' is not related to learning to 'drive'. This is a perfect example of.....
2. If the previous learning aids in new learning it is called as.....
3. Someone needs to learn two foreign languages but is unable to learn the second one because the previously learnt language hampers in acquiring vocabulary of another language then it is called as

7.4 APPLICATION OF PRINCIPLES OF LEARNING

Since the beginning of this lesson we have been learning about LEARNING. Do you think that the various principles that we have discussed in the previous sections can facilitate us in day to day life? Psychologists around the world use various principles of learning in behaviour modifications. The various ways in which the principles of learning can be used in our lives are as follows:-

Reinforcements: Both positive and negative reinforcements can be used to modify the behaviours of children to make them learn a range of appropriate behaviours.



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For example if someone has a fear of public speaking then continuous positive reinforcement can be used to encourage whenever the child tries to speak in front of others. Practice, experience and encouragement can help overcome the fear. Such an exercise equally works with people in different age brackets and with different learning abilities.

Extinction: The process of extinction works to eliminate undesirable behaviour.

Do you remember when we were learning about extinction, we learnt that if the behaviour is not reinforced it gets extinct?

Suppose for example a child has acquired a habit of lying on the floor and crying whenever the demand is not fulfilled. Giving in to the demands of the children means to reinforce the behaviour of lying down on the floor. If the parents do not reinforce this behaviour and do not give importance to the behaviour then after some days the behavior would get extinct.

Premack principle: This can also facilitate more desirable behaviour among individuals. For example, in order to play with friends the child first needs to clean the room.

Observation learning: This is process of learning by observing the behaviours of others. The desired behaviour is observed, memorised, and then imitated. Observational learning, also known as shaping and modelling, is most common in children as they imitate the behaviours of adults.

Cognitive Learning: Do you ever realize what happens when you work on the problem on your own and try to reflect on your experiences to come to the solutions then learning is the most effective.

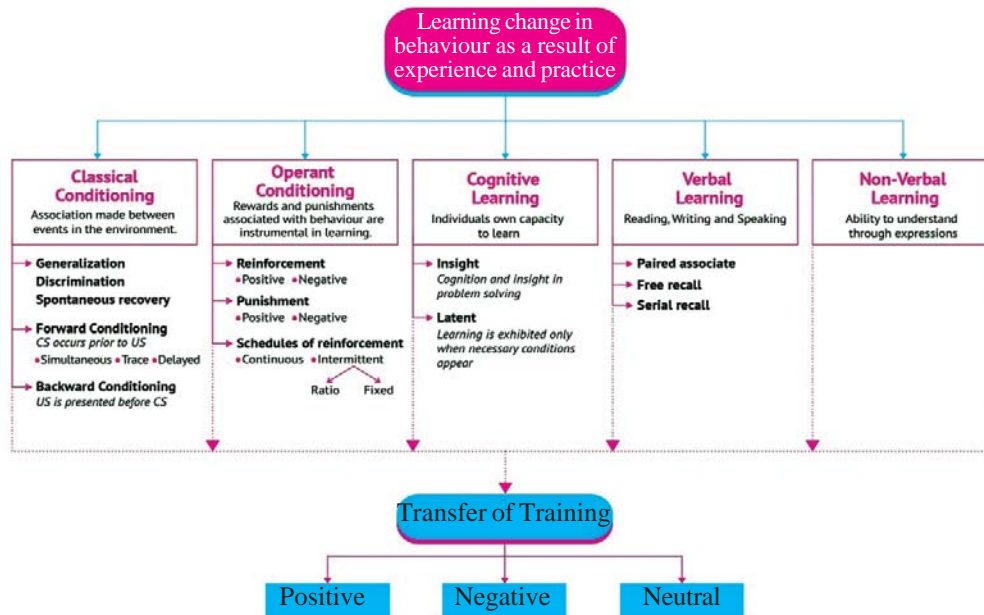
For example, reflect on your experiences and try to understand how you learn, by listening to someone, by watching a video, by doing things on your own etc.

Learning and motivation: It is really important to understand that if you are motivated to learn something you will learn it fast.

For example, someone whose job requirement is to travel a lot so instead of relying on the public transportation one wants to drive on their own. Such a person will learn driving quickly as compared to the others who does not have a specific motivation to drive.



WHAT YOU HAVE LEARNT



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TERMINAL QUESTIONS

1. How does observational learning affect behavior?
2. Discuss with examples how positive and negative reinforcement can be used with little children to make them learn appropriate ways of behaving.
3. Discuss in detail the cognitive learning theory and how it is different from classical conditioning and operant conditioning?
4. What are the different schedules of reinforcement? Discuss their role in establishing a behavior.
5. Discuss any three ways in which different principles of learning can be applied in day-to-day life.
6. What are the three types of transfer of training? Give examples of each type.
7. Define and give examples of verbal and non-verbal learning in Psychology?
8. What is the basic principle of operant conditioning as demonstrated by B.F. Skinner?

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9. What is the three-phase process of classical conditioning as described by Pavlov's experiments on dogs?
10. What is the role of learning in adapting to the environment and acquiring new knowledge?

**ANSWERS TO INTEXT QUESTIONS****7.1**

1. Learning is defined as the process of obtaining information or ability by studying, practising, experiencing something.
2. Learning is defined as the process of acquiring knowledge, skills, and behaviours, whereas, maturation refers to both the mental and physical development of a person.
3. Instinctive behaviour refers to species-specific behaviour and is inherent. Learning occurs as a result of experience and practice.

7.2

1. c
2. d
3. b
4. e
5. a

7.3

1. Neutral transfer
2. Positive transfer
3. Negative transfer