

Learning



Lesson: Learning

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1. Learning Outcomes:

After reading the lesson, you should be able to:

- understand the concept of learning,
- differentiate between various theories of learning,
- understand the concept of reinforcement,
- appreciate different types of reinforcement,
- appreciate the relevance of studying learning and reinforcement for shaping behaviour in organizations.

2. Introduction

Everybody has experienced rewards and punishments in some form or the other at some stage of life. Rewards and punishments are used to build enthusiasm in an individual or deter him/her from a specific performance or behaviour. Similarly, in organizations also, employees are rewarded or punished by their managers in order to have desirable behaviour exhibited by the employees. Desirable behaviours can be made to learn, and undesirable can be unlearned. Learning brings a relatively permanent change in behaviour, resulting from some experience, and is an important concept in organizations. Most of the behaviour taking place in organizations is learnt and only a small part of behaviour can be attributed to personality. A manager can use reinforcement and learning as a tool to control the performance of his subordinates. By using different types of reinforcements and learning concepts, the behaviour of the employees can be shaped in desired ways.

3. Reinforcement

Reinforcement refers to increasing the probability that a desired behaviour will reoccur by applying consequences that are dependent upon the behaviour in question. The amount of reinforcement given by the manager to his subordinate can be controlled by him. For example, if playing for only one hour during a day and not more is considered to be a desirable behaviour for a student, he may be reinforced in several ways for exhibiting such behaviour:

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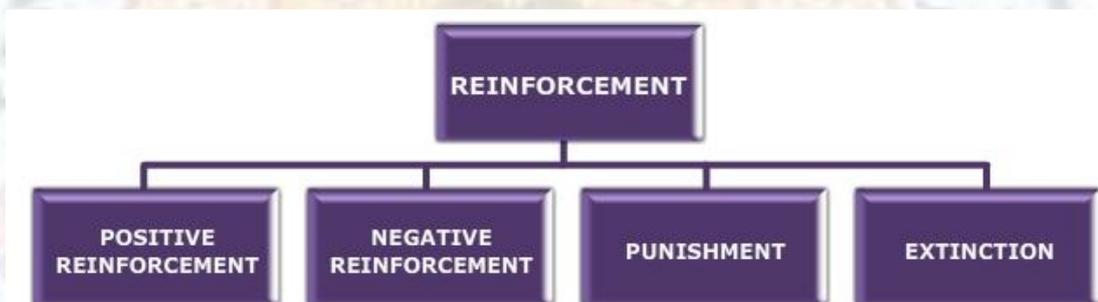
- He may be praised on the day he plays games for an hour.
- He may be given exemption from cleaning his room every time he plays for one hour only.
- He may be asked to clean all the rooms of the house every time he plays for more than one hour.
- He may not be allowed access to some of his favourite toys or gadgets or may not be allowed to watch his favourite T.V. programmes when he violates the rule of playing only up to an hour.

We see that there are several ways of reinforcing a desired behaviour. While in some cases it may be an act of encouragement by giving positive stimulus like praise, or relieving from a negative stimulus like cleaning room; in other cases it may be an act of discouragement by extending negative stimulus like punishing or withholding sometime dear from a person. Let us now consider these types of reinforcement a bit further.

3.1 Types of Reinforcement

Reinforcement may be of various types. A manager may use different techniques to reinforce the behaviour of employees, as different techniques affect employees differently.

Figure 1: Types of Reinforcement



Positive reinforcement is a reward or other desirable consequence that follows a particular behaviour or activity. It is used to increase the frequency of action or behaviour. For example; an employee works overtime to accomplish a task. On successful accomplishment the manager announces a special bonus. The employees' happiness thus becomes associated with the outcome of overtime that led to the reward. He will be willing to work overtime in the future too.

Negative reinforcement is a means of increasing a desired behaviour by eliminating an undesired or an unpleasant consequence. For example, the same employee will work very hard during the day knowing that failing to accomplish the task will require him to work overtime for that day. The desired behaviour which is hard work is reinforced when the negative stimulus, working overtime is removed.

Punishment is a means of eliminating or reducing the frequency of a particular behaviour by introducing a potentially undesirable consequence. For example salary cuts, termination and layoffs, loss of privileges in an organization. The employee, who got rewarded might be punished if found tardy in his work with doing overtime.

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Extinction involves withholding the pleasing stimulus every *time* the behaviour occurs which is maintaining the non-occurrence of the undesired behaviour. This keeps on repeated until the behaviour gradually decreases to the desired level. If rewards are withdrawn, the frequency of occurrence of undesirable behaviour is most likely to reduce. When a professor wants to avoid answering questions he ignores the hand raising behaviour of the students leading it to becoming extinct.

While punishment, whether positive or negative, reduces the probability of an undesired behaviour, negative reinforcement increases the probability of a desired behaviour. Punishment involves administering a negative consequence when an undesired behaviour occurs, whereas, negative reinforcement entails removing a negative consequence when a desired behaviour occurs. Punishment is stronger and last for longer than reinforcement. So Skinner raises caution while using the concept of punishment. Reinforcement is psychologically a better tool and simpler to use. But sometimes reinforcement alone does not work. The punishment suppresses the action but it is imperative in certain cases. The managers in organisations have to make appropriate interventions and modify the behaviour

Value Addition 1: Video
Reinforcement
Click on the link below to watch a video on positive and negative reinforcement.
Source: http://www.youtube.com/watch?v=nMGRck-fVJ0

Figure 2: Click on the link below to view a figure on Positive and Negative Reinforcement.

Source:

<https://wikispaces.psu.edu/download/attachments/40050309/Operant+Conditioning.png?version=2&modificationDate=1275023794000>

The above figure clearly shows that there are two kinds of stimulus: positive and negative. While positive stimulus refers to extending something, negative stimulus refers to removing/withdrawing something. Therefore, a positive stimulus is denoted by a '+' sign and a negative stimulus is denoted by a '-' sign. Both positive and negative stimulus can be used to reinforce or punish. When positive stimulus is used to reinforce the behaviour, it increases the frequency of the desirable behaviour. For example, when the teacher praises a student for a good assignment, it makes him feel good about himself. He would write a good assignment the next time to keep up the standard of behaviour had brought him applaud. In organizations, when a manager appreciates the contribution of an executive in a meeting, he feels elated. This makes the executive keep up the behaviour that brought him/her laurel. When positive stimulus is used as a punishment, it decreases the frequency of the undesirable behaviour. For example, giving a lecture to the kids when they do not brush their teeth at night. In organizations, conducting morning meeting for taking up stock of the day's work strictly at 9:00 A.M. in the morning may deter the employees to come late to their workplace. Also, linking high targets with lucrative incentives may bring enthusiasm in the employees to work harder and with commitment. When negative stimulus, like elimination of unwanted condition or behaviour or situation is used to reinforce the behaviour, it increases the frequency of the desirable behaviour. In case of an organization, denying the presence of employees in recognition ceremonies if they absent themselves from the company meetings, may ensure their presence for the same. When negative stimulus is used as a punishment, it decreases the frequency of the undesirable behaviour. For example, imposing a penalty on the employees in the above example if they absent themselves from meetings is negative stimulus. The

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difference lies in the fact that while in the previous example a negative stimulus (withdrawal of participation in celebrations) is used to reinforce a behaviour (attending meetings), in this case negative stimulus (imposing penalty) is used to punish and reduce the undesirable behaviour (not attending meetings). However, it must be kept in mind that use of positive stimulus is better than use of negative stimulus. Negative stimulus must be used sparingly, as it may lead to resentment among the employees and they may start violating the organization's code of conduct or work in detrimental ways. Withdrawing certain benefits in case an employee violates the organization's code of conduct or gets involved in detrimental activities would make the employees avoid such indulgence. Psychologists are of the opinion that reinforcement is certainly better than punishment, be it positive or negative. However, sometimes a combination of both is required to be adopted for effective results.

Value Addition 2: Activity

Positive and Negative Reinforcement

Some desirable and some undesirable behaviours in an organization are listed below. If you were the manager of this organization, which reinforcement, positive or negative, would you use to reinstate the desirable behaviour and curb the undesirable behaviour. Give reasons for your choice and discuss it with your peers.

Desirable behaviours:

- Employees working overtime to meet targets.
- Reaching office in time.
- Leaving home early to avoid getting stuck in traffic.
- Taking collective responsibility for an assigned project.

Undesirable behaviours:

- People causing conscious delay in meeting deadlines.
- People drinking alcohol.
- People quitting to take other jobs even if they are underpaid.
- Employees shirking responsibility.

Value Addition 3: Example

Reinforcement used by Hotel Blue Isles

Hotel Blue Isles was having problems with its cleaning staff. The hotel wanted to promote better cleanliness with minimum turnover and cost. The work being done was substandard and there was a high turnover amongst the cleaning staff. The hotel was incurring high expenditure for training the housekeeping. But despite all efforts, the situation was not improving.

The Hotel took the following steps to address the issue. A definition of the cleanliness behaviours was created and the daily activities of the housekeeping staff were defined. A feedback system was also created to know what was happening. The use of reinforcement to promote the required behaviour was delineated. The present cleanliness behaviours were charted. A record of individual work output per day was maintained. Specific tasks were mentioned and checked. Motivation in terms of praise and incentives was offered. As a result of reinforcement, the performance peaked to 90%. The incentive scheme also helped to maintain the performance at a steady level.

3.2 Schedules of Reinforcement

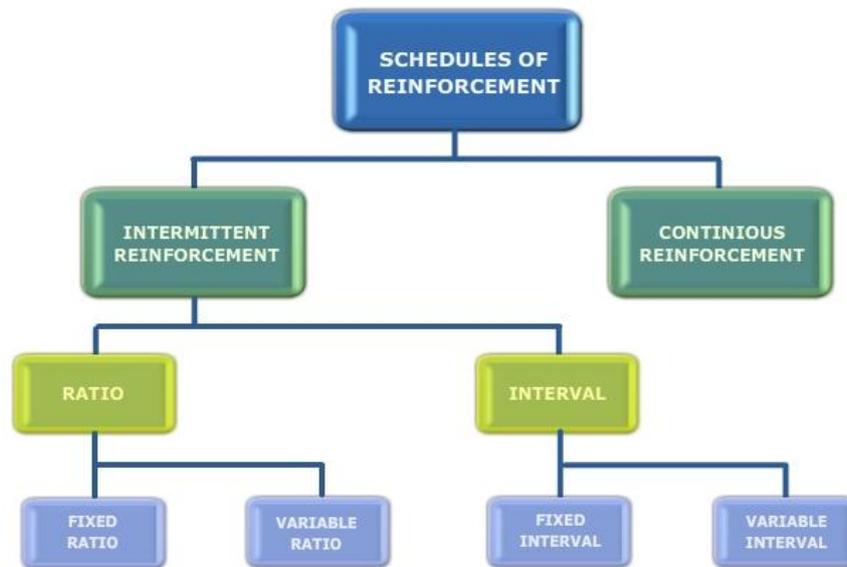
Reinforcement can be continuous, where all behaviours are reinforced; or intermittent, where all behaviours are not reinforced. Every time a student comes in time, he can be praised, or he may be praised occasionally rather than at all times. However, continuous reinforcements lose their importance soon enough, so it is better to follow

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an intermittent schedule. In intermittent schedule a desired behaviour is reinforced frequently but not every time it happens. Intermittent schedules can be ratio or interval schedules. Ratio schedules are judged on the number of times an event happens and interval schedules depend upon the time gap between two consecutive responses. Intermittent schedules can be of the following types:

- **Fixed interval schedule:** Rewards are given at uniform time intervals.
- **Variable interval schedule:** Rewards are given at varying time intervals.
- **Fixed ratio schedule:** Reward given at fixed number of responses.
- **Variable ratio schedule:** Reward given at a variable number of responses.

Figure 3: Schedules of Reinforcement



Fixed Interval Schedules: Here, reinforcement is given after a specified interval of time has passed, for example, raise that is given after a performance review every year. The desired behaviour is reinforced after an interval has elapsed. This type of reinforcement may not produce consistent results. The behaviour might be good and energetic before the reinforcement but not after or vice versa. This form of reinforcement is good for learning a new behaviour or for punishment.

Variable Interval Schedules: In this reinforcement, the interval of time between reinforcements varies. For example, in drug testing, a random drug screening may be required to be conducted after every 3 months, however, it might take place after 2 or 4 months with average time equaling 3 months. This schedule is best used when there is a fear of fading out of a fixed interval schedule.

Fixed Ratio Schedules: In this a reinforcement of a desired behaviour occurs a certain number of times before it is reinforced. The reinforcement is given only after a given number of occurrences e.g. employees paid on fixed "piece rate" for every piece produced. Because the fixed ratio schedule is fixed it produces consistent and steady behaviour. Of course it may not be true in some circumstances as in when piece rate workers are influenced by their peers to increase or reduce output.

Variable Ratio Schedules: In this schedule, a reinforcement of a desired behaviour happens after a variable number of responses. Lottery and pot luck are examples where people are reinforced by winning at some and losing at some times. These tend to be

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more effective because they generate a higher rate of desired response and do not allow extinction to occur.

Value Addition 4: Points to Ponder

Caution with Reinforcement

Reinforcement must be used with caution in order to bring desired outcomes. A manager must be careful about the following points while reinforcing his employees:

- Rewards must be administered only when workers perform desired behaviours.
- Employees should be communicated about the prospective reinforcements linked to certain behaviours in advance. It should not be assumed that they know them.
- Right behaviours, and not just any or all behaviours, must be identified for reinforcement.
- Don't reward all employees in the same way. One should take individual preferences into account.
- The consequences of both reinforcing actions and non-actions must be considered in advance.
- Reinforcement must be provided uniformly and in an unbiased manner.
- Punishment must be avoided as far as possible and in case it is to be applied, it must not take place in front of others. Everyone must be allowed to save face.

The study of reinforcement and learning in context of organization behaviour helps a manager identify desirable behaviour and problematic behaviour and use reinforcement and incentives for influencing behaviour in organizations. It is the actual application of reinforcement concepts to individuals in the work setting. It is important that the current behaviours in the organizations are identified and those that are hindering achievement of objectives should be changed or eliminated. So shaping behaviour in organizations or Organization behaviour modification as it is called is an important concept to bring organizations closer to their aims Behaviour modification has been successfully applied in industry and organization's to change behaviour, improve productivity, improve the effectiveness of training programs, use concepts of well pay rather than sick pay to reduce absenteeism by rewarding attendance rather than absence. It has been used to enhance employee discipline by encouraging compliance rather than by punishing which can be counter-productive. It is an excellent self-management tool which allows an employee to monitor his or her behaviour thus limiting the need for external management. In spite of the stated benefits, there are ethical concerns which need to be addressed in the use of OB Modification. OB Mod can compromise an individual's freedom because the aspirations of the employee may not always considered when implementing the reinforcement strategy. OB modification may be viewed as manipulating employees or making them obey whatever is told to them. So OB Modification thus has the potential for misuse. It should take into consideration individual needs, beliefs, values, personality etc. and the group norms before being implemented in an organization.

4. Concept of Learning

Learning is a sequential process that happens all through life. Learning, however, happens step by step as we move from the known to the unknown, from simple to complex. There are various ways in which learning may happen. It may be acquired through observation, insight, experience, formal education, formal training, management development programmes or through research and analysis. Learning involves change,

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the change that enhances the level of knowledge or wisdom. Such change causes a change in attitudes and values. As a result of new wisdom and values, there is a change in behaviour. Unless a change in behaviour is reflected, learning is not said to have taken place. Learning is thus a relatively permanent change in knowledge or observable behaviour that comes from practice or experience. A person may learn through his/her own experiences or from experiences of others. It is called 'relatively permanent' as it tends to last for quite some time, until new learning happens, but not for all times to come. There is a difference between maturation and learning. Maturation involves some change in behaviour (e.g. walking, talking or adult sexual behaviour) but it is the result of the biological development in addition to the experience because of age. Some people do not get enough or required learning even on attaining the biological maturation. Learning brings maturation but the reverse is not always true for all kinds of learning. Though learning comes due to age and experience, but it is not the only criteria. Learning is not totally associated with the biological development. It depends upon environmental and physiological factors too; it may thus be intentional or unintentional. Learning need not always be consistent it may be inconsistent too. Whatever way learning occurs, it has to be crystallised through regular practice, and else it is forgotten.

Definitions of Learning

"Learning is a modification of both behaviour and way of perceiving." - Murphy

"Learning is the process by which an activity originates or is changes through reacting to an encountered situation, provided that the characteristics of the change in activity cannot be explained on the basis of native response tendencies, maturity or temporary status of an organism." - Hilgard

Characteristics of Learning

From the above discussion and definitions, learning may be described to have the following characteristics:

1. It is a process.
2. It is a continuous and sequential process.
3. It happens through education, experience, observation, insight, or research.
4. It involves a change in behaviour.
5. It is relatively permanent.
6. It is different from maturation.

Organizational Learning

Organizational learning is somewhat different from the organisational learning. It is a subset of Organizational Behaviour. It has been developed as a result of contributions from various disciplines like, educational psychology, sociology, economics, political science and management. The field of educational psychology suggests that organizational learning happens through sequential process of acquiring knowledge, comprehending it, applying it, and analysing it to freeze it. The field of sociology suggests that as against something taking place in the head, organizational learning is an outcome of social interaction between people. The economists suggest the use of models for efficient decision making. According to them, organizational learning is the result of analyzing the outcome of various models in the light of actual outcomes. The discipline of political science points out that organizational learning is a result of evaluating the historical experiments and adapting to their findings or results. Organisational learning relates to acquiring knowledge about the organisational procedures, the interpersonal relationships and synchronizing the employees with the organisation's culture as a whole.

Need for Learning in Organizations

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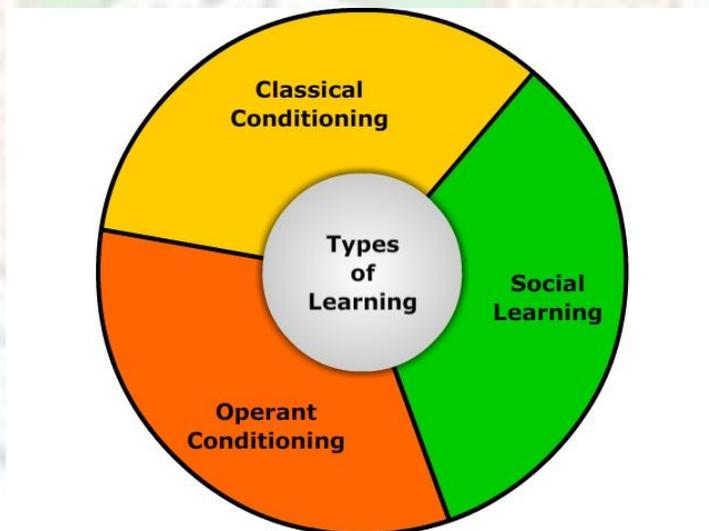
Changes keep taking place both within and outside the environment. These changes bring forth new opportunities and threats. Human resources have to be constantly enabled to make the best use of opportunities and secure themselves from the potential threats. The concept of learning gains significant importance in the turbulent business environment. Learning in organizations brings enhancement of abilities or skills. Either the employees are able to handle their current jobs more efficiently, or become suitable for handling newer tasks or responsibilities of higher order.

Different people learn in different ways. They respond to different stimuli and training methods differently. They react to various human resource development strategies differently. This calls for a clear understanding of the ways in which learning happens for different people and the different theories of learning so that the manager is able to identify and apply the most suitable learning theory in a given situation.

Learning has broadly been classified into three types, which are also referred to as theories of Learning. These are:

1. Classical Conditioning - This type of learning involves learning of involuntary responses such as emotional reactions.
2. Operant Conditioning - This type of learning involves learning of voluntary responses. The learning of goal-directed behaviour takes place through the direct experience of consequences of that behaviour.
3. Social Learning - This type of learning involves learning by observation. The learning of goal-directed behaviour takes place through observation and imitation of others.

Figure 4: Types of Learning



4.1 Classical Conditioning

Figure 5: Ivan Pavlov

Learning



Source: https://upload.wikimedia.org/wikipedia/commons/c/c2/Ivan_Pavlov_NLM2.jpg

The classical conditioning, also known as Pavlovian conditioning, is attributed to Ivan Pavlov, who did his experiments on dogs and established that learning occurs when an organism learns to transfer a response from one stimulus to another stimulus. The first stimulus is a unconditioned stimulus and the second is the conditioned one. The main elements of the Pavlovian theory are:

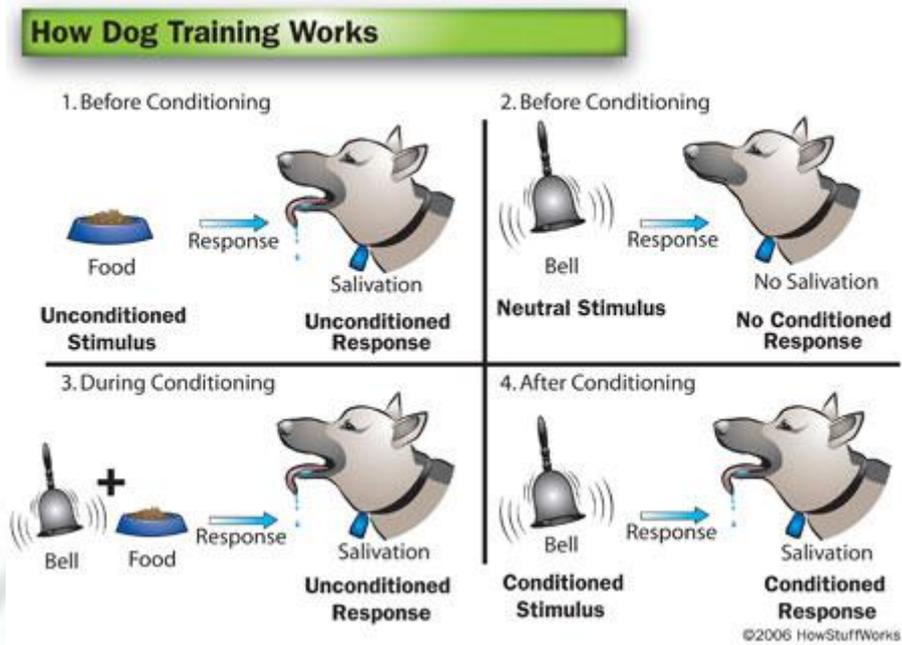
1. *Unconditioned stimulus* (UCS): a stimulus that invariably an organism responds to.
2. *Unconditioned response* (UCR): a response to an unconditioned stimulus.
3. *Conditioned stimulus* (CS): a previously neutral stimulus which when paired to the *unconditioned stimulus* gets a desired response when presented alone.
4. *Conditioned response* (CR) : a response to a conditioned stimulus

In Pavlov's classic experiment, dogs were presented food (UCS) on which they would naturally salivate (UCR). Then the presentation of food (UCS) was paired with the sound of a bell (CS) whereupon on the sounding of the bell alone the dog would salivate (CR).

Figure 6: Click on the link below to see an image of Classical Conditioning

Source: <http://static.ddmcdn.com/gif/dog-training-18.jpg>

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The figure explains the theory of classical conditioning in four steps shown in four quadrants of the diagram.

Step 1 shows that before conditioning when food (unconditioned stimulus) was provided to the dog, the response was salivation (unconditioned response).

Step 2 shows that when bell was rung without offering food (neutral stimulus), it resulted in no salivation (no conditioned response).

Step 3 shows that when bell was rung along with offering food (stimulus during conditioning), it resulted in salivation (unconditioned response).

Step 4 shows that after some time of repeating conditioning behaviour, when bell was rung without offering food (conditioned stimulus) after the process of conditioning, it resulted in salivation (conditioned response).

In other words, the dog had conditioned the ringing of bell with receiving food.

The learning process here, thus involves, associating an environmental (conditioned) stimulus to a naturally (unconditioned) stimulus. It is important that unconditioned stimulus appears before conditioned stimulus.

There are many useful applications for classical conditioning. Classical conditioning can be used for treatment of phobias or anxiety problems. In education, it can be used to reduce anxiety or nervousness by associating performance with relaxed surroundings and supportive behaviours. Thus, students will associate performance with supportive behaviours and overcome anxiety gradually.

Value Addition 5: Video

Classical Conditioning by Ivan Pavlov

Click on the link below to watch a clipping on classical conditioning as given by Ivan Pavlov.

Source: <http://www.youtube.com/watch?v=hqumfpxuzI>

4.2 Operant Conditioning

Figure 6: B. F. Skinner

Learning



Source:

[https://upload.wikimedia.org/wikipedia/commons/3/3f/B.F. Skinner at Harvard circa 1950.jpg](https://upload.wikimedia.org/wikipedia/commons/3/3f/B.F._Skinner_at_Harvard_circa_1950.jpg)

This theory of learning was forwarded by B.F. Skinner. He performed his classic experiment on rats. The rat presses a bar in a "Skinner box" and on successful pressing; positive reinforcement in the form of a food pellet is given which reinforces the bar-pressing behaviour.

He propounded that individuals also learn to behave in certain ways to obtain desirable consequences or avoid undesirable consequences. However, learning takes place when the learner understands that there is a connection between behaviour and its consequences. The concept of reinforcement and punishment was given by him. According to him, reinforcements increase the likelihood of behaviour and the punishments decrease the likelihood of behaviour.

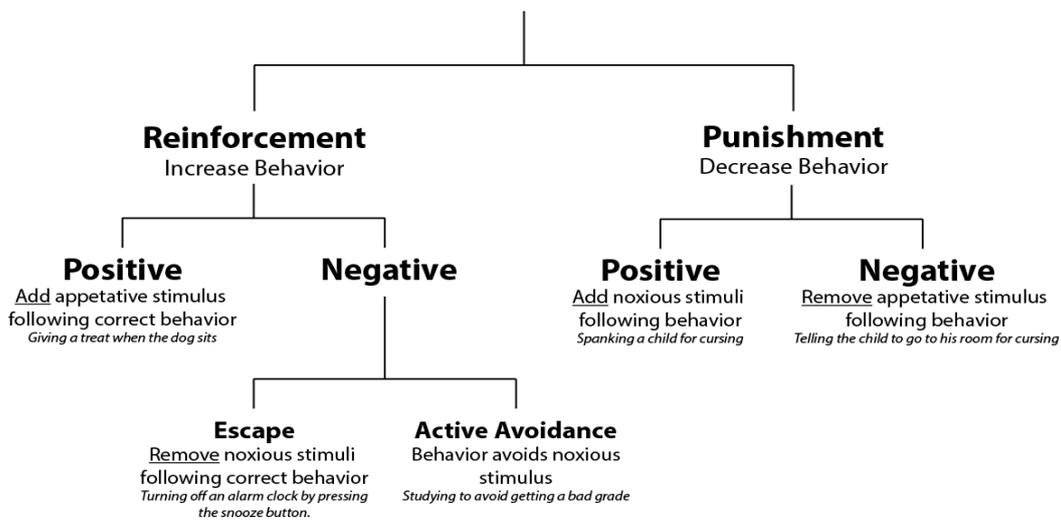
He believes that the particular behaviour can be strengthened and increased by reinforcement, positive or negative. For example: the rate of occurrence of a positive or desirable behaviour in terms of hard work, and timely appropriate decision making is increased and strengthened if the worker(s) in the organisation is/are either praised or some economic incentive is given for the same (positive reinforcement). The desirable behaviour is also strengthened if a negative condition is removed for achieving the required action e.g. HR manager gives detailed guidelines to his team so that the chaos and confusion (undesirable condition) is avoided and the goal is accomplished. Or manager finance prepares his reports cautiously (desirable behaviour) to avoid nagging (undesirable behaviour) of the executive director in front of his team. These are the examples of negative reinforcements.

The behavioural responses decrease when a punishment (positive or negative) is administered. The employee who reports late at work for three days will get a pay of one day cut. This means the presentation of undesirable stimulus to decrease the late coming behaviour. This is the example of positive punishment. If the employees are told that in the absence of being able to produce 10,000 units within a particular time (desirable behaviour), they will not get much awaited bonus (withdrawal of desirable stimulus) in the festive season. This is the case of negative punishment.

Figure 7: Use of Reinforcement and Punishment to create Operant Conditioning

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Operant Conditioning



Positive presence of a stimulus

Negative absence of a stimulus

Reinforcement increases behavior

Punishment decreases behavior

Escape removes a stimulus

Avoidance prevents a stimulus

Source:

http://upload.wikimedia.org/wikipedia/commons/1/16/Operant_conditioning_diagram.png

This theory has been adopted, right from ages, to make the people learn about the desirable behaviour. Everyone is taught through the conditioning that one should study to get intelligence. And if one does not study or get educated he/she does not get the recognition in the society or he/she does not acquire wisdom.

Reinforcement thus is the administration of certain consequences subsequent to performance of desired behaviours. Positive re-enforcers are events whose presence increases the chances of desirable behaviour to occur whereas negative reinforcement is any event which if eliminated increases the chances of a behaviour to occur. Both Positive and negative reinforcement increase the chances of a response, the main difference is that in positive reinforcement the desired stimulus e.g. food, commission on sales etc. is presented whereas in negative reinforcement the unpleasant stimulus e.g. pain, scolding electric shock is terminated. The premise is that an unpleasant event is taking place which can be removed by emitting the desired behaviour. Negative reinforcement differs from punishment, but it may normally be resulting from the fear of punishment. Punishment is any event whose presence leads to decreasing chances of behaviour to happen. It weakens the undesirable behaviour to reinstate the desirable behaviour. Extinction is the removing of a consequence that is currently reinforcing an undesirable behaviour so as to decrease the probability of occurrence of future behaviour.

Comparison of Classical and Operant Conditioning

The study of both classical and operant conditioning must be compared and contrasted to understand them better. The basic difference between the two is that while the response is involuntary and elicited in classical conditioning, the response is voluntary

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and spontaneous in case of operant conditioning. In other words, stimulus precedes response in classical conditioning, and stimulus follows response in operant conditioning. Since response is reactive, i.e. a result or consequence of stimulus in classical conditioning, an individual has no control or choice in his response or behaviour. However, since response is proactive in operant conditioning, an individual has a choice in response or behaviour. As a result of available choice in response, responses may be very different in operant conditioning. Consequently, an appropriate stimulus is provided to curb or promote specific responses. It becomes easy to reinforce certain desirable behaviours by providing stimulus to favourable responses in operant conditioning. However, in classical conditioning, an unconditioned stimulus is identified and is paired with the conditioned stimulus, so that the conditioned stimulus may be used later to elicit the desired response. Since every time with the use of conditioned stimulus results in the same response, responses are fixed and not variable in classical conditioning. These differences are summarized in the figure below.

Figure 8: Comparison of Classical and Operant Conditioning.



Value Addition 6: Video

Operant Conditioning by B. F. Skinner

Click on the link below to watch a clipping on classical conditioning as given by B. F. Skinner

Source: <http://www.youtube.com/watch?v=m2ICEYodz8I>

Application of Theory of Conditioned Response and Operant Conditioning in Organizations:

The study of Pavlov's theory of conditioned response and Skinner's theory of operant conditioning is very useful to Human Resource managers in seeking desirable response from their employees in the organization. As an application of theory of conditioned response, let us say the HR manager notices that giving higher incentives (unconditioned stimulus) leads to enhanced productivity (response) of employees. He may pair additional responsibility (conditioned stimulus) with unconditioned stimulus for some time to make the employees learn that additional responsibility will bring forth higher incentives. Thereafter, he may use only conditioned response, i.e. additional responsibility or job enrichment to elicit enhanced productivity. Similarly, as an example for operant conditioning, let us say that when the HR manager observes employees' dedication towards his work or loyalty towards organization (voluntary response), he may promote them to higher positions (stimulus). Such a practice over a period of time will cause the learning in the organization that dedicated and loyal contributions will bring forth promotions. By establishing such a practice in the organization, he would be successful in eliciting committed work behaviour and loyalty of employees.

4.3 Social-Learning Theory

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According to the social learning theory, learning is viewed as active acquisition of knowledge through processing of information. Individuals learn certain voluntary behaviours through observing the behaviour of others. They see those behaviours and their consequences and cognitively process that information. They then, tend to imitate or repeat that behaviour, thus learning takes place.

As per social learning theory, people use cognitive symbols such as models e.g. their parents, teachers etc. as guide to their behaviour. They use forethought to plan their behaviours and actions. They learn through vicarious modelling by observing the behaviour of others. They show self-control by taking personal responsibility of their actions. Individuals also tend to be different in their levels of self-efficacy, which is defined as an individual's confidence in his/her ability to perform a specific task in a specific situation, which in turn, influences their learning and behaviour.

So, according to the social learning approach, there are four main variables that influence learning.

- 1. Attention processes:** people learn from a model only when they recognize and pay attention to its aspects.
- 2. Retention processes:** A model's influence is dependent upon how much the individual remembers the model's action.
- 3. Motor reproduction processes:** This involves repetition of the observed behaviour. By observing the model, the watching must be changed into doing.
- 4. Reinforcement processes:** Individuals are motivated to reproduce the modeled behaviour if they are given reinforcement in terms of rewards etc.

Managers can apply the social learning theory by identifying behaviours in models or employees that lead to improved performance. They can select an appropriate model for others to emulate. They need to ensure that the behaviours are repeated by employees having requisite skills. They also need to positively reinforce any learning that takes place as a result of emulating such behaviour by giving positive consequences for successful performance and developing organizational support for the projected behaviours .

Value Addition 7: Video

Social Learning Theory by Albert Bandura

Click on the link below to watch a clipping on social learning theory that emphasises learning by observing, imitating or by modelling.

Source: <http://www.youtube.com/watch?v=H-IJzoE4XIs>

Value Addition 8: Activity

Identify the type of Learning

In the following situations, identify the type of learning as classical, operant or social learning giving reasons for your opinion. Discuss your opinion with your peers.

1. After making a policy more stringent regarding lateness, a worker sees a coworker fired for excessive tardiness, resulting in increased attention to arriving on time. (Conditional/Social)
2. After a tightening in policy regarding lateness, a worker receives a written reprimand for being late twice in one month, resulting in increased attention to arriving on time. (Social/Operant)
3. After witnessing a coworker's accidental loss of several fingers in a machinery accident, a worker experiences anxiety when operating on the same piece of machinery. (Conditional/Operant)

Besides the three important theories of learning described above, the other types of learning are:

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1. Thorndike's Theory of Trial and Error
2. Kohlar's Theory of Learning by Insight
3. Cognitive Learning

These are described briefly in the following section.

Thorndike's theory of trial and error is based on three laws: Law of readiness, Law of exercise and Law of Effect. It states that when an individual is ready or receptive to learning a new behaviour, uses it repeatedly and receives a positive effect from its adoption, the individual tends to follow it firmly in future. This learning happens in a trial and error manner, without any conscious awareness of concepts of learning or reinforcement.

Kohler's theory of learning by insight suggests that learning happens through sudden comprehension of what is seen or heard, rather than gradual understanding of events or behaviour. According to him, the insight perceives an act in the context of its whole, rather than its parts or secondary details. The insight gathered from processing any sensory information as a whole is regarded as learning.

Cognitive learning is referred to as the attainment of knowledge, understanding, interpretation of various concepts through a process of comprehending and evaluating how things are related to each other. Any course that is taken up formally is an example of cognitive learning.

Value Addition 9: Activity

Quiz on Learning

Click on the link below to undertake a quiz and see your score with respect to learning and behaviour theory.

Compare your score with that of your peers.

Source: <http://allpsych.com/tests/psychology/learning.html>

Summary:

- Reinforcement refers to increasing the probability that a desired behaviour will reoccur by applying consequences that are dependent upon the behaviour in question.
- Reinforcement may be of various types. A manager may use different techniques to reinforce the behaviour of employees, as different techniques affect employees differently. Types of reinforcement may be: positive and negative reinforcement, punishment and extinction.
- There are different schedules of reinforcement: Fixed interval schedule, Variable interval schedule, fixed ratio schedule, and Variable ratio schedule.
- Learning is a sequential process that happens all through life. It happens through education, experience, observation, insight, or research. It involves a change in behaviour. The change is relatively permanent.
- Learning in organizations brings enhancement of abilities or skills. Either the employees are able to handle their current jobs more efficiently, or become suitable for handling newer tasks or higher order responsibilities.
- Learning has broadly been classified into three types, which are also referred to as theories of Learning. These are: Classical Conditioning, Operant Conditioning, and Social Learning.
- Classical conditioning is attributed to Ivan Pavlov, who did his experiments on dogs and established that learning occurs when an organism learns to transfer a response from one stimulus (unconditioned) to another stimulus (conditioned).
- B.F. Skinner, in his theory of Operant conditioning, stated that learning takes place when the learner understands that there is a connection between behaviour and its consequences. It suggests use of positive and negative reinforcement and

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punishment to increase the frequency of desired behaviour or reduce the frequency of undesirable behaviour.

- While, stimulus precedes response in classical conditioning, it follows response in operant conditioning.
- According to the social learning theory, learning is viewed as active acquisition of knowledge through processing of information. Individuals learn certain voluntary behaviours through observing the behaviour of others. They see those behaviours and their consequences and cognitively process that information.
- Learning is also described by Theory of Trial and Error by Thorndike, Theory of Learning by Insight by Kohlar, and Cognitive Learning.
- The study of reinforcement and learning in context of organization behaviour helps a manager identify desirable behaviour and problematic behaviour and use reinforcement and incentives for influencing behaviour in organizations.

Glossary:

- **Antecedent:** The event that precedes and stimulates behaviour.
- **Cognitive learning:** It refers to selective interpretation of perceptual stimuli into specific thought patterns and relationships.
- **Consequence:** It refers to the result of a behaviour.
- **Extinction:** A conditioned response which will weaken and eventually disappear if the Conditioned Stimulus is presented in the absence of the Unconditioned Stimulus.
- **Punishment:** involves the introduction of an aversive stimulus or the removal of a stimulus that is rewarding.
- **Vicarious modelling:** It refers to people observing a model in a social situation and then imitating or modelling the behaviour themselves.

Exercises:

Objective Type Questions:

1. Learning can be defined as:
 - a) any change in behaviour.
 - b) a change in behaviour due to maturation.
 - c) a change in behaviour due to experience.
 - e) a relatively permanent change in behaviour due to experience.
2. Who first identified the form of learning called classical conditioning?
 - a) Kohler
 - b) Ivan Pavlov
 - c) Albert Bandura
 - d) B. F. Skinner
3. Classical conditioning can be described as:
 - a) learning by association.
 - b) learning by stimulus-response.
 - c) learning by rote
 - d) learning by observation.
4. In Pavlov's classical conditioning experiments, a bell was the
 - a) conditioned response.
 - b) unconditioned stimulus.
 - c) unconditioned response.
 - d) conditioned stimulus.

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5. The process of learning in which the consequences of a response determine whether the behaviour will be repeated is called
 - a) classical conditioning.
 - b) operant conditioning.
 - c) learning by insight
 - d) social learning.
 - e) latent learning.

6. Ram gives his subordinate a bonus for meeting sales targets. Ram is using
 - a) Extinction
 - b) negative reinforcement.
 - c) positive reinforcement.
 - d) classical conditioning

7. Shekhar receives Rs 1000 for every 20 calls he makes. This is an example of
 - a) Fixed-ratio
 - b) Variable-ratio
 - c) Fixed-interval
 - d) Variable-interval

Short Answer Questions:

1. What do you understand by learning? How does it take place?
2. Discuss Classical conditioning theory? Is it relevant in Organizations?
3. On what principles does operant conditioning operates?
4. What does Social Learning involve? What role do your peers or colleagues play in learning?
5. What do understand by the concept of reinforcement? Is reinforcement always necessary?
6. Discuss the various schedules of reinforcement with examples?
7. What is Behaviour Modification? Discuss the steps in Behaviour Modification?

Long Answer Questions:

1. Do you think that learning occurs as a result of a one year education or three year degree course? Why or why not?
2. Discuss the classical conditioning theory of Pavlov in detail and comment on how it influences learning by quoting examples from everyday life?
3. Discuss how operant and social learning theories influence the morale of employees in organisations? What are the conditions under which these can be successful?
4. Discuss the difference between positive and negative reinforcement with practical examples from organisations?
5. What kinds of reinforcements can a professor use to increase the chances of students learning all the class material given by him?
6. What do you understand by behaviour modification. How would a production in-charge in a manufacturing firm use the principles of OB modification to change his subordinates behaviour?
7. Where can Behaviour Modification be applied? Is it ethical to use it always?

(Answers to objective type questions:

1- e, 2-b; 3-a; 4-d; 5-b; 6-c; 7 a)

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1. Work Cited:

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- Miner, John B. (2007). *Organizational Behaviour: From Theory to Practice*. Armonk, NY: M.E. Sharp, Inc.
- Richard S. Sutton and Andrew G. Barto. *Reinforcement Learning: An Introduction*. A Bradford Book, The MIT Press, Cambridge, Massachusetts, London.
- Singh Kavita (2010) *Organizational Behaviour*, Pearson Education.
- Schein, E. H. (2004). *Organizational culture and leadership* (3rd ed.). San Francisco, CA: Jossey-Bass Publishers
- http://en.wikibooks.org/wiki/Learning_Theories/Organizational_Learning:_Contributions_by_Discipline

2. Suggested Readings:

- *Organizational Behaviour and Management (Paperback)* by John M. Ivancevich
- *Organizational Theory, Design, and Change (Hardcover)* by Gareth R. Jones
- Aquinas, P.G., *Organizational Behaviour*, Excel Books
- Hersey, Blanchard and Johnson, *Management of Organizational Behaviour: Utilizing Human Resources*, Prentice Hall

3. Web links:

- Visit the link <https://wikispaces.psu.edu/display/PSYCH484/3.+Reinforcement+Theory> to read more on types of reinforcement.
- Visit the link <http://gulinnaa.pbworks.com/w/page/36910035/Skinnere%205> to read more on Skinner's Theory of Behaviour.
- Visit the link <https://wikispaces.psu.edu/pages/viewpage.action?pageId=56633350> to read examples of positive and negative punishment and schedules of reinforcement.
- Visit the link <http://blogs.scientificamerican.com/thoughtful-animal/2012/01/11/what-is-classical-conditioning-and-why-does-it-matter/> to read about classical conditioning.
- Visit the link <http://www.simplypsychology.org/operant-conditioning.html> to read about operant conditioning.
- Visit the URL <http://www.slideshare.net/merkapt/ob-7> to know more on learning.
- Visit the URL <http://www.preservearticles.com/201105206847/nature-of-learning.html> to read more on characteristics of learning.