NATURE OF LEARNING

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MEANING OF LEARNING

Learning is a key process in human behaviour. All living is learning. If we compare the simple, crude ways in which a child feels and behaves, with the complex modes of adult behaviour, his skills, habits, thought, sentiments and the like- we will know what difference learning has made to the individual. The individual is constantly interacting with and influenced by the environment. This experience makes him to change or modify his behaviour in order to deal effectively with it. Therefore, learning is a change in behaviour, influenced by previous behaviour. As stated above the skills, knowledge, habits, attitudes, interests and other personality characteristics are all the result of learning. Learning is defined as "any relatively permanent change in behaviour that occurs as a result of practice and experience". This definition has three important elements.

a. Learning is a change in behaviour—better or worse.

b. It is a change that takes place through practice or experience, but changes due to growth or maturation are not learning.

c. This change in behaviour must be relatively permanent, and it must last a fairly long time.

TYPES OF LEARNING

1. Motor learning:

Most of our activities in our day-to-days life refer to motor activities. The individual has to learn them in order to maintain his regular life, for example walking, running, skating, driving, climbing, etc. All these activities involve the muscular coordination.

2. Verbal learning:

This type of learning involves the language we speak, the communication devices we use. Signs, pictures, symbols, words, figures, sounds, etc, are the tools used in such activities. We use words for communication.

3. Concept learning:

It is the form of learning which requires higher order mental processes like thinking, reasoning, intelligence, etc. we learn different concepts from childhood. For example, when we see a dog and attach the term ‘dog’, we learn that the word dog refers to a particular animal. Concept learning involves two processes, viz. abstraction and generalization. This learning is very useful in recognizing, identifying things.

4. Discrimination learning:

Learning to differentiate between stimuli and showing an appropriate response to these stimuli is called discrimination learning. Example, sound horns of different vehicles like bus, car, ambulance, etc.

5. Learning of principles:

Individuals learn certain principles related to science, mathematics, grammar, etc. in order to manage their work effectively. These principles always show the relationship between two or more concepts. Example: formulae, laws, associations, correlations, etc.

6. Problem solving:

This is a higher order learning process. This learning requires the use of cognitive abilities-such as thinking, reasoning, observation, imagination, generalization, etc. This is very useful to overcome difficult problems encountered by the people.

7. Attitude learning:

Attitude is a predisposition which determines and directs our behaviour. We develop different attitudes from our childhood about the people, objects and everything we know. Our behaviour may be positive or negative depending upon our attitudes. Example: attitudes of nurse towards her profession, patients, etc.

LAWS OF LEARNING

EL Thorndike has explained three laws of learning called Primary laws and in addition to these, he has also framed 5 subsidiary laws in connection with his trial and error learning theory.

Primary laws:

These are the most important laws, which explain the basic aspects of learning. They are:

1. Law of readiness:

By readiness means the organism is ready to respond or act. This is more essential prerequisite for learning.

This indicates that the animal or human being is motivated to learn. This condition of readiness has two effects— satisfaction and annoyance. When the animal is ready to act- if permitted- it gives pleasure. If it is not permitted, it feels annoyed.

In the same way when the animal is not ready to learn- if asked to learn- it is annoying. On the other hand, if it is prevented from learning it gives pleasure.

These points have been given below in the words of Thorndike:

a. For a conduction unit ready to conduct-to conduct is satisfying.

b. For a conduction unit ready to conduct-not to conduct is annoying.

c. For a conduction unit not ready to conduct- to conduct is annoying.

This law clearly shows that readiness of a person to learn is very important. Hence motivate him to learn.

2. Law of exercise:

This law is also known as law of frequency. Frequency refers to number of repetitions of learning. Thorndike believed that repeated exercising of a response strengthens its connection with stimulus.

This aspect refers to law of use and disuse, which explains that, anything not in use will perish. So also if the response is not repeated, its bond with stimulus gets weakened. This is also according to the statement that ‘practice makes man perfect’.

In Thorndike’s experiment the cat becomes perfect after repeating the response more number of times, i.e. it learnt to open the door without committing any error.

3. Law of effect:

This law states that when a connection is accomplished by satisfying effect- its strength is increased. By this, Thorndike meant that the probability of its occurrence is greater. In his experiment if the hungry cat succeeded in opening the door, would get its favorable dish to eat.

This had a positive effect on its response. Rewards always strengthen connections between stimuli and responses, and on the other hand, punishment weakens connections.

Secondary laws:

In addition to the three primary laws explained above, Thorndike has given five secondary or subsidiary laws also.

They are as follows:

a. Law of multiple response:

It means when a response fails to elicit a desired effect, the learner will try with new responses until the goal is reached.

b- Law of set or attitude:

Mental set or positive attitude is very important in any learning.

c. Law of associative shifting:

This is nothing but shifting of the response to a new situation which is similar to the earlier one. Because the fundamental notion is that, if a response can be kept intact through a series of changes in stimulating situation, it may finally be given to a new situation.

d. Law of prepotency of elements:

This law states that the learner is able to react in a selected way, only to the salient elements of the problem and not for other unimportant elements.

e. Law of response by analogy:

It means comparing a new situation to the previously learned one and thus giving a response by analogy.

TYPES OF LEARNING CURVE

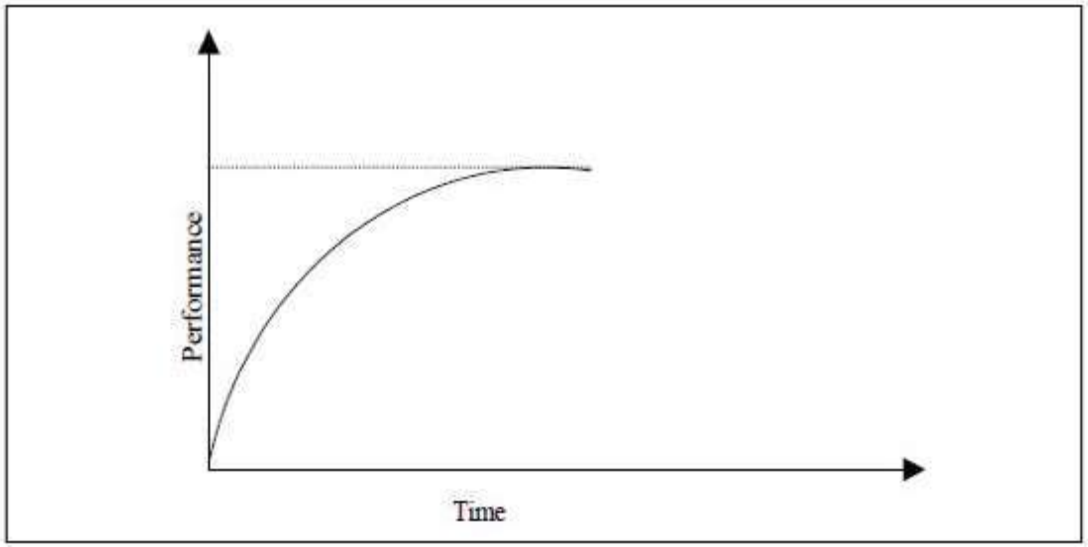
This principle of learning involves the time factor and the repeated effort in order to gradually increase the strength of the response. This is especially true when the behaviors to be learned are comparatively complex such as skills that are learned and improved by practice. Learning curve is a diagrammatic presentation of the amount learned in relation to time.

There are 3 types of learning curves:-

a) Diminishing return
b) Increasing return
c) Increasing-Decreasing-Return

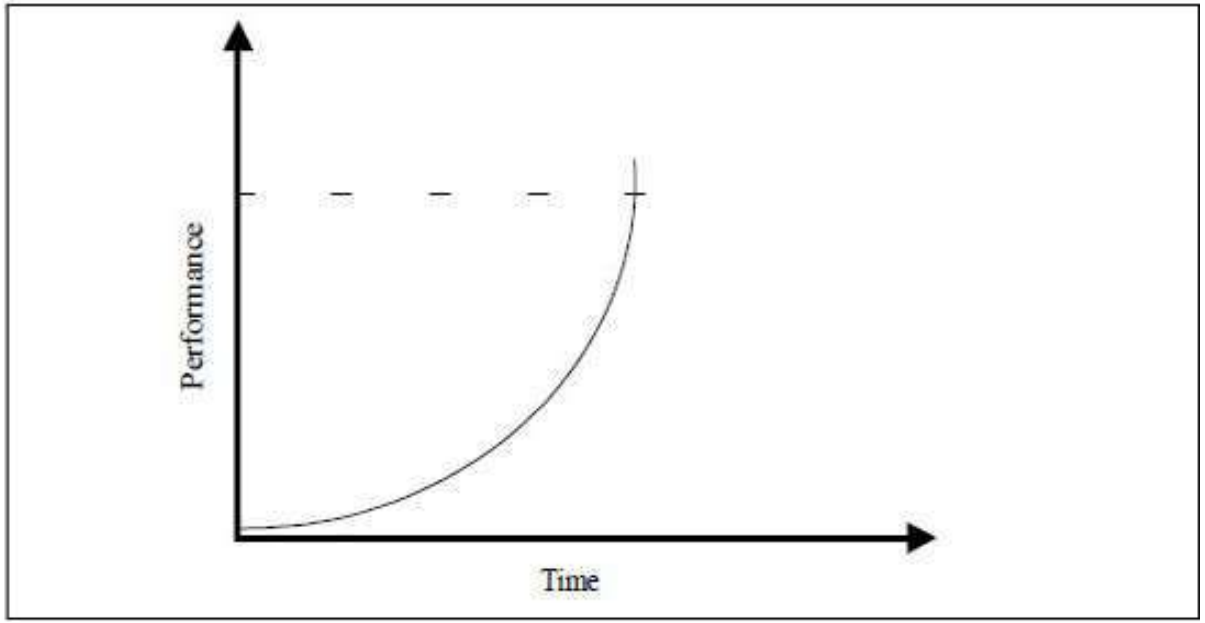
DIMINISHING-RETURN LEARNING CURVE

In this type of learning, the "rate of increase" in the degree of skill is higher in the beginning but decreases with time until it reaches zero and the person has obtained the maximum skill. It indicates that initially there is a spurt in learning, usually the graph levels at some stage indicating the maximum performance has been achieved. This is because at the beginning of the learning process, the learner is highly motivated to exhibit a significant surge of effort.



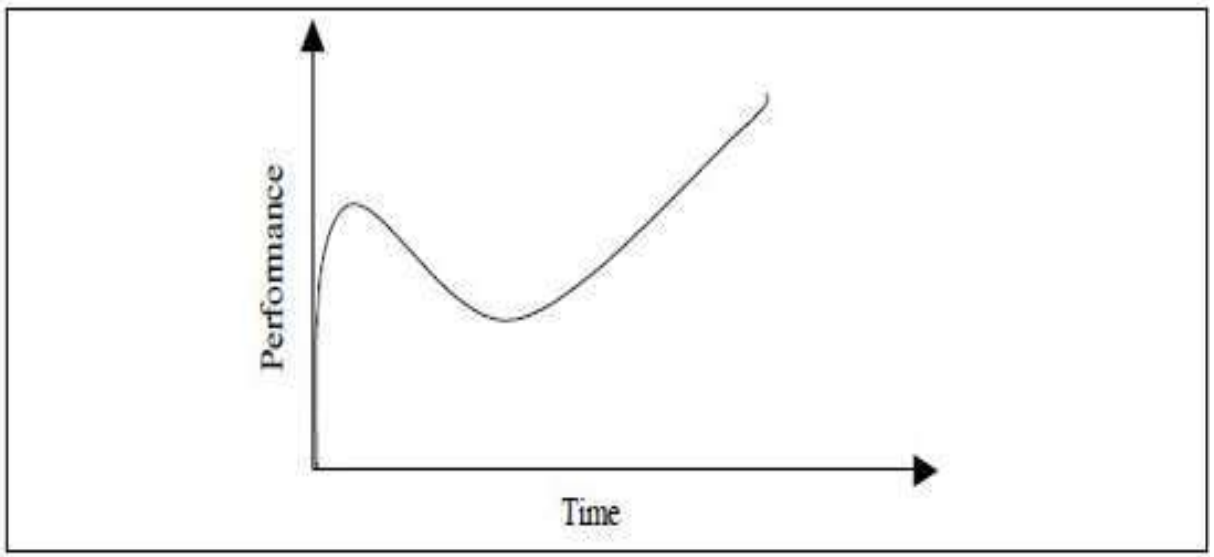
INCREASING-RETURN LEARNING CURVE

Another type of learning curve is the "increasing-return curve " which is just the opposite of "diminishing-return curve" in the sense that there are certain learning skills where the rate of increased learning is slow in the beginning and then it increases until the maximum potential for learning is reached. This usually occurs when a person is learning a complex unfamiliar and new task.



INCREASING-DECREASING-RETURN LEARNING CURVE

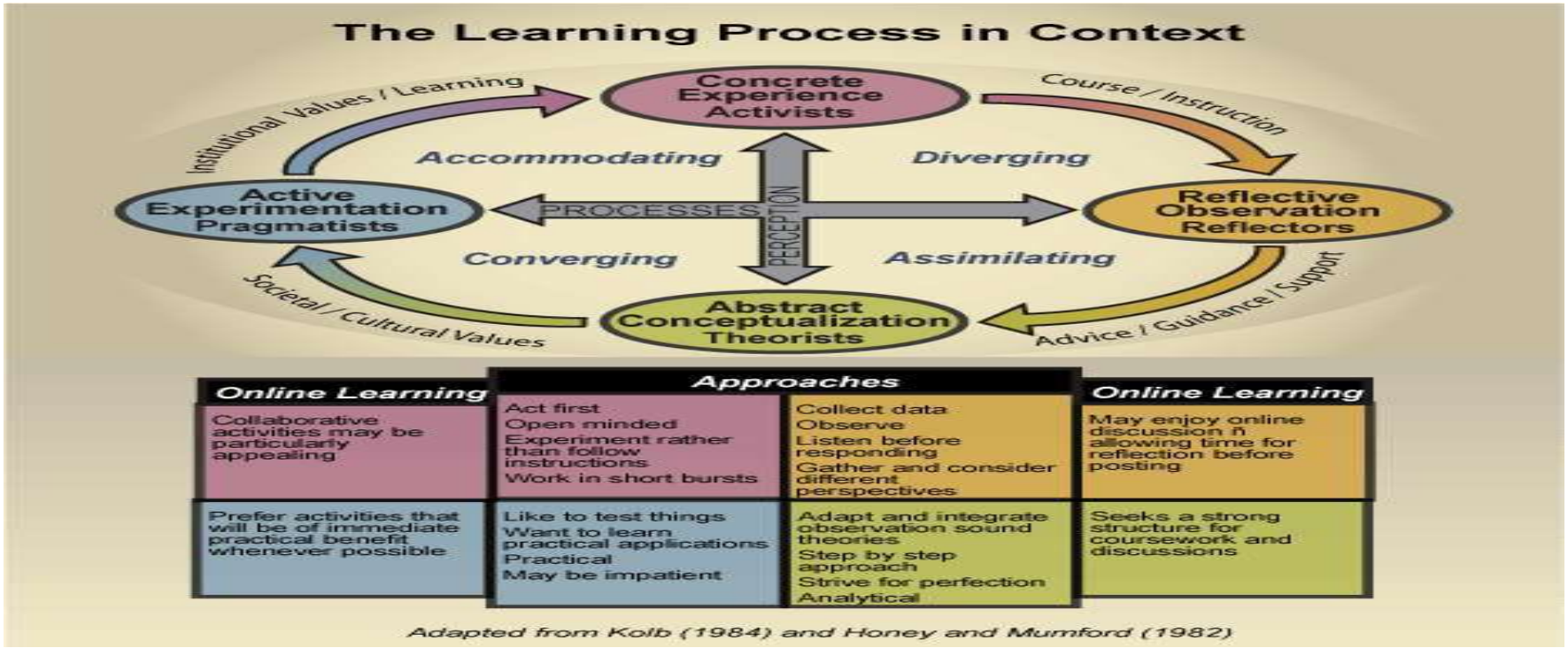
It is a combination both the "diminishing-returns curve" and the "increasing-returns curve". It is an "s-Shaped curve". If a person is totally new to the skill that he is learning, then all learning will probably follow an S-shaped curve. The lower portion of the curve represent the initial stages of acquiring a skill with very slow learning initially followed by successively greater returns, eventually reaching the absolute limit.



LEARNING PROCESS

Kolb's Model of Experiential Learning
The model used to inform the self assessment survey was based on the work of David Kolb (1984). Click on the image to enlarge it.
Kolb's model (based on experiential learning theory) identifies four modes in the learning cycle:
Concrete Experimentation
Reflection
Abstract Conceptualization
Active Experimentation.
Basically, this is a fancy way of saying that we learn by:
Doing something **(Concrete Experimentation)**
Thinking about it **(Reflection)**
Doing some research
Talking with others and applying what we already know to the situation **(Abstract Conceptualization)**
Doing something new or doing the same thing in a more sophisticated way based on our learning **(Active Experimentation)**.

Kolb's holistic model builds on the earlier work of prominent scholars on human learning and development, but it doesn't say much about the value of social connection and the possibilities for more of these connections made available through online technologies. We have expanded on it to include some of the "big picture" influences that are important in the learning process. These include your values and cultural influences, the values of the institution and the learning community created by the instructor, your peers and your support network.



Kolb identified two separate learning activities that occur in the learning cycle:
perception (the way we take in information) and
processing (how we deal with information).
This is represented on the diagram as two axis dividing the cycle into four quadrants.
Each quadrant represents different learning processes as follows:
Converging processes relate to bringing a number of perspectives to finding a single answer – usually right or wrong. You may use this way of thinking in a scientific context.
Diverging processes are about generating a number of accounts of different experiences. Typically, these are more creative processes.
Assimilating processes describe (roughly) the taking in of new knowledge.
Accommodating processes describe (again, roughly) the related of the new knowledge to our prior experiences and beliefs.

THANK YOU