LEARNING

Definitions

1. Learning is a process of progressive behaviour adaptation (Skinner, 1960).

2. Learning is a process by which a person becomes changed in his behaviour through self-activity (Leagans, 1961).

3. Learning is the process whereby knowledge is created through the transformation of experience (Kolb, 1984).

4. Van den Ban & Hawkins (1988) defined learning as the acquiring or improving the ability to perform a behavioural pattern through experience and practice.

5. Learning is any relatively permanent change in behaviour that occurs as a result of experience or practice (Weiss, 1990).

6. Learning is a relatively permanent change in behaviour that results from practice (Atkinson et al, 1993).

7. According to Woolfolk (1995), learning occurs when experience causes a relatively permanent change in an individual's knowledge or behaviour

Principles of Learning

There are some principles of learning which are very much applicable in extension. The principles are generalised guidelines which form the basis for taking action. Following are some of the principles of learning along with their implications in teaching.

1. Principle of Association

Learning is growth-like and continuous. The kind of learning that takes place is the result of the kind of experience we have. Previous learning always sets the stage for subsequent learning. New learning may be associated with previous successful and satisfying responses. For example, if the farmers have obtained profitable return by the application of

nitrogenous fertilizer, they may be motivated to use balanced fertilizers containing phosphate and potash, for still higher return.

Implications for teaching principle are:

• Begin at the level of the learner.

• New must be related to the old.

• Adjust the pace to the learner's capacity, one idea at a time.

• Bring the idea to the attention of the learner repeatedly (in a variety of ways) and over a period of time.

2. Principle of clarity of objectives

Learning is more effective when it is purposeful. The learning must be useful to the learners. Objectives must be clear and meaningful to the learners. What is to be learnt must be important to a relatively large number of participants in the group and must be attainable.

Implications for teaching

• Learning must make sense to the learning.

• Progress must be constantly appraised and redirected.

• Purpose must be kept in sharp focus (objectives must be clear to the learner and teacher).

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3. Principle of self activity

Learning is an active process on the part of the learners. The instructor can create a situation and stimulate a person to learn. The door to learning is "locked on the inside" and unless the learner opens the door herself/himself, learning cannot take place. Activities appropriate to the specific learning must be used. For example, conducting demonstration by the farmers in their own fields provides opportunity of self-activity, that is, ***learning by doing***. This makes learning effective and permanent.

Implications for teaching

• Activities appropriate to specific learning situation must be used.
• Learning activities should engage a maximum number of senses.

4. Principle of motivation

To learn, people need to feel the need for learning. When this desire exists, the learner will exert a high level of effort. The learning experience, therefore, should be designed so learners can see how it will help them achieve those goals they have set for themselves.

Implications for teaching

• Teacher motivation of the student is essential in making learning more challenging.
• Standards demanded of the learner should be suitable to their ability or capacity.
• Appropriate and timely recognition should be given to student achievement.

5. Principle of practice

When learner actually practice what they have read, heard, or seen, they gain confidence and are less likely to make errors or to forget what they have learned. Active involvement through practice, therefore, should be made part of the learning process.

Implications for teaching

• Course content should be organised into meaningful units.
• Theory should be related to practice.
• Provide activities that stimulate actual use situation.

6. Principle of disassociation

Learning is affected by emotions. The most effective way of eliminating an undesirable response is to set up a desirable substitute that must be more satisfying than the original reaction. For example, when planting a crop in lines gives better yield, the farmer may be advised not to practise broadcasting.

Implications for teaching

• Strive to increase pleasant emotions and decrease unpleasant emotions of students in connection with the learning process.
• Train the expression of emotions in the right direction.

7. Principle of readiness

Learning takes place more effectively when one is ready to learn.

8. Principle of set or attitude

An unfavourable attitude or set retards learning and a favourable attitude accelerates it.

9. Principle of reinforcement

Behaviours that are positively reinforced (rewarded) are encouraged and sustained. When the behaviour is punished, it is temporarily suppressed but is unlikely to be extinguished.

10. Principle of transfer of learning

It does not make much sense to perfect a skill in the classroom and then find that you cannot successfully transfer it to the job. Therefore, learning should be designed to foster transferability.

11. Principle of feedback

Learning is facilitated when the learners are provided with knowledge of progress of learning.

12. Principle of abilities

Learning abilities varies widely among individuals. The level of communication and the level of understandability of the subject matter taught must be in line with the learner's ability.

Types of Learning

The different types of learning are as follows.

Conditioned Response Learning

Ivan Petrovich Pavlov was the pioneer of the study on conditioning. He discovered conditioned reflex and developed the concept of conditioned response learning. The implication of Pavlov's findings is that an organism reacts to a new experience on the

basis of identical past experience. Future learning is based on and referred to past learnt experience.

Verbal Learning

Ability to manipulate symbols, as in languages, makes it possible for us to learn things.

Motor or Skill learning

It involves primarily the use of muscles of the body. In this, the individual learns muscular coordination as a mode of response to some situation.

Perceptual Learning

As a result of past experience people perceive the situation differently. One way of changing a person's habit of responding is to change the way in which the individual perceives the environment.

Attitude Learning

An attitude is an emotionalized system of ideas which predisposes an individual to act in a certain way under certain conditions. Much of our learning involves change in our attitudes, our disposition to give favourable or unfavourable response to objects, persons, situation or abstract ideas.

Problem Solving

When a person finds oneself in a novel situation in which the individual is motivated to achieve a certain goal but in which the progress toward the goal is blocked by some obstacle for which there is no readymade response to overcome the person is confronted with a problem. Solution of the problem involves the development of some sort of response by which the individual may overcome the obstacles.

Learning Situation

An effective learning experience can only be had in a well-structured and skilfully executed learning situation. The essential role of the extension agent is to create learning situations that stimulate and guide learning activity. A good extension agent is one

who can create and manage learning situations in which learners have effective learning experiences.

A learning situation is a condition or an environment in which all the elements necessary for promoting learning are presenting namely (a) instructor (b) Learner (c) Subject matter (d) Physical facilities and (e) Teaching equipments.

Figure 1 is a symbolic representation of the reaction the learner makes to the other four elements and the way these five elements react to each other.

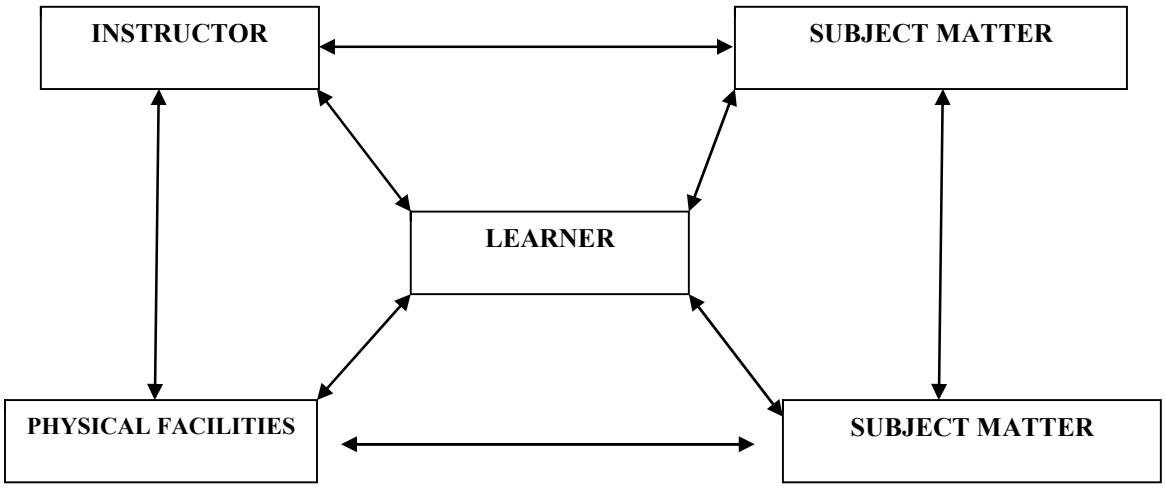

FIG. 1. THE ELEMENTS OF A LEARNING SITUATION

A. Instructor: Should

a). Have clear objective

b). Know the subject matter and have it well organized

c). Be enthusiastic and interested in the subject.

d). Be able to communicate with learners.

e). Be democratic in his leadership.

f). Allow student participation, ask for it.

g). be prepared. Be prompt, be friendly, be courteous.

h). Use a teaching plan.

i). Speak so that all can hear.

j). Set a good example of a good leader and teacher.

B. Learner: Should

a). Have need for information

b). Be interested

c). Be capable of learning

d). Use the information gained

C. Subject matter or content:

a). Pertinent to learners' needs.

b). Applicable to real life situation.

c). Taught at intellectual level of learners.

d).Well organized – logically presented

e). Presented clearly.

f). Challenging, satisfying and significant to the learners.

g). Fits into over all objectives.

D. Physical Facilities

a). Free from outside distractions.

b). Temperature as comfortable as possible

c). Well lighted

d). Adequate space for the group

e). Furniture comfortable and well – arranged.

E. Teaching Equipment and Supplies

a). Meet the needs effectively

b). Readily available.

c). Each item used skilfully.

The nature of each of these elements, their relationship to each other, their role in the educational process must be thoroughly understood by the instructor and skill developed by him in handling them. Effective learning situations are created through the skilful use of appropriate teaching methods and techniques.