

Principles of learning & teaching

Objectives: At the end of this lesson you shall be able to

- **define learning**
- **classify the essential principles of learning**
- **describe the types of learning**
- **list the factors affecting learning process.**

Learning is a psychological process of acquiring new or modifying existing knowledge, behaviours, skills, values or preferences which leads to a change in behaviour of an individual. There are certain basic psychological factors and principles related to learning which every instructor should understand and be able to apply in his presentation. The learning does not take place unless the learner is ready and instructor is willing to teach. Therefore, this change will be due to certain conditions of learning, like motivation, stimulus, response, etc. All these process of motivation, stimulation and response are connected with psychological reasoning. This reasoning is known as principles of learning. For making the students to learn better, it is important for an instructor to know the principles of learning, which influence in better learning.

The following are some of the principles of learning that the instructor should know and make use of teaching.

Learning results from stimulation through human senses

Learning is explained as the things, learner does as responses to stimuli. Real learning is the change which takes place in a learner, as a result of his mental and physical responses or reactions to stimuli caused in the mind through neuro muscular activity of the senses. As a result of the contacts with ideas and things a learner responds, which leads to the learning of new knowledge, improvement in certain habits, changes in learner attitudes or points of view.

Hence, it is the instructor's responsibility to provide the best learning situations and guide learners in acquiring skill in handling tools, equipment, machines and materials etc. When demonstrated a skill, he/she should be explained the purpose and the sequence of operation steps so that the rate of learning is enhanced.

Learning requires activity

"We learn to do by doing" defines that a principle which must be put into practice by every instructor. In order to develop manipulative skills the instructor make the learner/trainee physical work. Such physical work implies for the application of related information. It also keeps the learner active in mentally and physically and which leads to develop the habits of basic to skill development.

Learning is based on past experience

"Learning starts with what the learner knows but not with the teacher know or starts".

The said expression states that is true in all learning situations. What the learner knows is the foundation for what he intend to know. Suppose an instructor, presenting about the resistance in wires, he compares the flow of electrical current to the resistances and explain by comparing the flow of water from sizes of pipe (diameter of pipe). This similarity interacts with learner and be able to understand quickly. Hence, new learnings are learnt by learners by means of re-collecting or comparison with the past experience, that the learner knows.

Interest is essential to effective learning and makes learners ready to learn

Interest is inner feeling which causes people to direct their attention to do certain thing. Interest leads to attention. Attention with interest makes the learner to concentration. Concentration with purpose provide feelings. The experiences obtained lead to reach highest point (culminate) in real learning. The instructor should motivate the learners in order to create interest by providing the conditions under which learning is purposeful, quick and effective.

Early success increase chance for effective learning

In the early stages of training program the instructor should see that the learners/trainees work under is direct supervision and guidance, which helps to learner to develop interest in the work what has been allotted to him. It is the responsibility of the instructor that the work what the learner does should result in success. When there is satisfaction further learning is possible. In case of normal and average learners the achievement such obtained will lead to great pleasure and stimulates or motivates to greater activity.

Knowledge of the purpose, use and application of thing to be taught makes learning more effective

The learner has right to know, the need of the learning. It is the responsibility of the instructor to convince the learner, the purpose of learning in which he is interested.

The instructor should correlate the theoretical informations to the practical applications of the jobs and the learner should learn and able to explain composite knowledge of related informations which makes him a good craftsman.

Continuous evaluation is essential to effective learning

Self evaluation of learner's efforts is essential to progress. The learner must continuously compare his work with some standard accomplishment learner if he/she is to improve. It is the responsible of instructor to keep goals are to the high standards of achievement. The instructor should help the trainees to compare their effort with the known and recognised quality. Even critics and evaluation of their performance improves their work.

Recognition and credit provide strong incentive for learning

Trainees/Learners ambition expect credit for their performance of work, when it is done well. Even though well performance may be the responsibility of the learner, awarding credit to their work, which causes for stimuli and greater activity among the trainees.

The most effective learning results when mital learning is followed immediately by application

The learner/trainee forgets very quickly the large part of learning when he/she has not given a chance of applying and not using constantly. The learner should make effort to use of newly learnt information, for remembrance and recall. Subsequent to the demonstration the instructor should provide opportunities to the learners to practice the skill which has been demonstrated, under the very careful supervision of the instructor.

Repetition helps development of skill

More number of repetition leads to develop habits. The trainees to develop the speed, accuracy. The accuracy must be emphasized in the beginning of training period. The acquisition of speed may be emphasized when trainee achieve accuracy and correct work habits. But for good results and development of skills, both accuracy and speed should develop simultaneously, so that in later the learner/trainee will be able to perform successfully to meet the industry needs, where speed and accuracy is more important for efficiency and profit.

Learners differ in their social and educational back ground, in understanding capacity and hence learner learns at various rate

Trainees/Learners differ as individuals from one another in their mental caliber and emotional behaviour patterns. They differ in expressing and understanding abilities. They learn in various rates. The instructor aim is not to the brightest learners/trainees or for the dullest trainees.

Motivation

Learners will not learn about any matter or thing unless they are motivated or created interest lean or to do as desired by the instructor. Motivation in teaching situation is a part of teaching which increases or encourages a desire to learn by the learners. By understanding the learner needs, when a instructor prepares and teaches, that itself a greatest source of motivation for the learners. Then only learners will have a confidence with instructor, become motivated and learning takes place with interest.

Motivation can be intrinsic and extrinsic in an individual/ learner/trainee. Intrinsic motivation elevates the learner to "self propelled" (self thrust) and leads to effective learning so to reach the desired goals. In case of extrinsic motivation, which is created by instructor/parent providing pleasant learning environment, financial help, recognition or praise.

Sustaining interest for continuous learning

There are two aspect of sustaining interest for continuous learning. One is creating interest in learning and the other is teaching in manner that maintains interest. Once the learner is motivated the instructor has to consider the following factors to maintain or sustain the interest among the learners.

- Encourage competition in learning activity.
- Give credit to the work well done.
- Show interest in all equally.
- Be impartial in his judgement.
- Reward the deserved learners for their outstanding work.
- Provide proper working conditions.
- Keep the entire class active with appropriate assignments.

Factors affecting learning

It has been found out that the learner's difficulty in learning may be due to many factors within the learner themself. Therefore, it is considered as important to study about the factors affecting learning to solve the problems related to learning to improve our efforts of teaching and training the learners in developing their competencies.

Psychology reveals that some of the important factors which may affect the learning process are as follows:

Readiness / Preparedness: Readiness / Preparedness are to be mentally ready to learn a skill is called readiness. **Readiness** implies a degree of concentration and eagerness. (Individuals learn best when they are physically, mentally, and emotionally ready to learn) and do not learn well if they see no reason for learning.

Interest: Interest refers to the feeling of **Your activities that you enjoy doing and the subjects that you like to spend time learning about to know or learn about something**. Teachers should make the lesson material relevant and applicable to learner's lives in order to build interest.

Intelligence: Intelligence is a natural capacity and ability which helps the individual to understand and solve the problems according to the situation.

Motivation: Role of motivation on learning engage learners in learning when they feel competent to do what is expected of them and perceive stable link between actions and achievements, they value the subject and have a clear sense of purpose they experience positive emotions towards learning activities.

Attitude: Human attitude is constructed on the bases of one's personal thinking and ideologies he/she likes and dislikes these ideologies create feelings among the individual. Negative attitude slows down the speed of learning and positive attitude speeds up learning process. Teachers must be cognizant of these attitudes and over all employ strategies that encourages positive attitude. Teacher can create love for education, hope, good ideas and development by changing the behaviour of the learner.

Feelings: feelings are the physical sensation we experience in our body and emotions are the labels we give those sensations in our minds. Love, fear and anger are supposed to be the basic feelings. Feeling is a power

which leads a person to its successful destination. Negative behaviour of parents, teachers and peers, improper environment, inferiority complex, failure in some tasks also affects the learning process. Teachers should promote positive feelings and emotions. He has to eradicate the feelings of fear and anger from the minds.

Frustration: The feeling of being upset or annoyed, especially because of inability to change or achieve something is called frustration. Frustration is caused by a lack of control over a situation. The best way to handle frustration is to back away from the problem, take a breath, and then approach the problem calmly and rationally.

Aptitude: Aptitude is the potential in the learner, which has as yet not been tapped and trained to a skill level. A learner, who possesses appropriate aptitude for a particular subject of study or skill, will learn better and retain it for a longer time.

Individual Differences: Learners have different strategies, approaches, and capabilities for learning that are a function of prior experience and heredity. Teachers need to help learners examine their learning preferences and expand or modify them, if necessary. The interaction between learner differences and curricular and environmental conditions is another key factor affecting learning outcomes. As teachers/trainers, we must be aware of about learner's individual differences.