
PSYCHOLOGICAL PRINCIPLES: A TOOL FOR ENHANCING TEACHING AND LEARNING

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Abstract

Today's educational system is highly complex. There is no single learning approach or style that works for everyone. That's why psychologists working in the field of education are focused on identifying and studying learning methods to better understand how people absorb and retain new information. Educational Psychology is an important aspect of teacher education. Educational psychology is one of the branches of applied Psychology which is an attempt to apply the knowledge of Psychology to the field of education. It is the application of psychological principles and techniques to human behaviour in educational situations. These principles were vetted over many years based on major documents related to the science of teaching and learning and these principles are helpful for the instructor but can also be incorporated into the psychology curriculum as examples of how applied psychology can be used to solve real-world problems. At the same time, these principles will help students develop skills to learn more effectively in all walks of his/her life.

Keywords: *Psychological Principles, Teaching and Learning, Principles of learning.*

Introduction

Teaching is a skilled job and a complex task. By all means, it is done for the benefit of the pupils, i.e. to bring desirable changes or improvement in their behaviour. Success of this operation depends upon a good planning and masterly execution of the same. The educationists, psychologists, research workers and the teachers working in the fields have tried to establish some general principles, psychological principles and maxims of teaching which may prove quit helpful in making the task of teaching quit effective and purposeful.

Psychological Principles of Teaching

Psychological principles of teaching are different than the general ones, which have resulted through the experiments and researches of the field in psychology of learning. Directly or indirectly they stimulate and influence the teaching process and make it more effective. Some of the important psychological principles are summarized as follows:

Principle of Motivation and Interest

Motivation and interest are the two central factors in any process of teaching and learning. The theories of motivation, interest and laws of learning, like law of readiness, have established the validity of these two factors. Motives are the potent forces that energize or activate all behaviours of an individual. The objective of bringing desirable changes in the behaviour can only be achieved if one is motivated to try or accept that change in his behaviour. Similarly, interest provides key to the learning and desired changes. The saying that "you can take a horse to water but you can't make him drink" fits equally well with a child who is made to learn something for bringing desirable changes in his behaviour.

Attention capturing and attention giving, the essential elements of a teaching or learning act, can only be accomplished through a well-planned scheme involving arousal of motivation and interest of the pupils in the teaching-learning process. Therefore, a teacher should always take care of the factors of motivation and interest for seeking the child's readiness and involvement in the teaching-learning act.

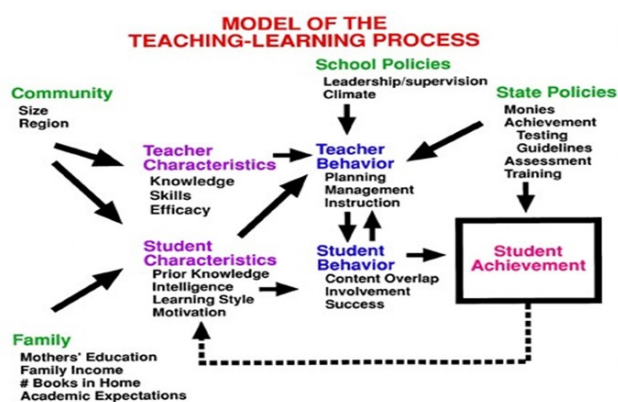
Principle of Repetition and Exercise

It was Thorndike who tried to put experimental evidences in favour of the utility of repetition and exercise in the process of teaching-learning. It has now been clearly established the desired changes in behaviour may occur frequently and effectively through the use of the principle of repetition and exercise. The saying that "Practice makes a man perfect" applies well in the acquisition of knowledge, skills, attitudes and interests. The teacher who believes in providing practice, revision, recapitulation and application of what has been taught by him may successfully achieve the objectives of his teaching.

Principle of Change, Rest and Recreation

Psychological experiments in learning have demonstrated the ill effects of monotony, fatigue and lack of attention in any learning task. The remedy in the form of stimulus variation and other types of changes in the contents, methods and teaching-learning environment and provision of appropriate rest and recreation had also been proceed quite effective .Therefore, a wise teacher should essentially plan and implement the provision of change, rest and recreation in his teaching act.

Principle of Feedback and reinforcement



Learning theories have well established the role of reinforcement and feedback devices in any task of teaching and learning. The immediate knowledge of the results and positive reinforce in the form of praise, grade, certificates, token economy and other incentives may play wonder in making the task of learning a joy, a thing to do again and an experience that is retained long. The behaviour modification, a major goal of the teaching-learning process, may

be properly achieved through the observation of the principle of feedback and reinforcement. The schematic representation of models of teaching learning process is given below.

Principle of Sympathy and Cooperation

A good teacher is a friend, philosopher and guide. He is not to dictate or direct the students but walk along with them on the track of learning. He is to provide adequate encouragement

and guidance by seeking their sympathy and cooperation. The task of teaching can never accomplish its objectives, if a teacher does not try and secure active participation of the students. The classroom environment becomes live and fruitful when the teacher and students work on the same platform, sympathizing and helping each other in the major task of teaching and learning.

Principle of Providing Training to Senses

Senses are said to be the gateway of knowledge. Research results in the field of learning are more encouraging when an experience is acquired through the use of a combination of senses—sense of hearing, sight, taste and touch. For this purpose, one has to train and use one's sense organs in an effective way. Defective sensation may lead to disastrous results. The power of observation, discrimination, identification, generalization and application may only be made appropriate through the effective functioning of senses.

Principle of Encouraging Self-Learning

A good teacher should be able to inculcate the habit of self-study, independent work and self-learning among the students. There is no end of knowledge in this world and one cannot even get a fragment of this vast ocean through spoon feeding or direct instruction from a teacher. He has to learn this way of acquiring the knowledge and seek the path of self-learning in order to learn essentials of life for his adequate adjustment. Therefore, a teacher should always work for creating the environment of self-learning by providing suitable opportunities and training to his students for this purpose.

Principle for Fostering Creativity and Self-Expression

Good teaching does not result in unintelligent learning, cramming or exact reproduction of the facts. By all means it should be able to develop the creative aspects of one's personality. It should work as an effective medium for self-expression so that students may be able to develop their hidden talents and abilities. It should call upon the originality, novelty, inventiveness of the students for the self-expression and creation. Students should be made to learn exploration of the things, events and find cause-effect relationship in the happening, and thus set their energies for creating and doing something new for the development of the society and humanity.

Principle of Remedial Teaching

A teaching act aims to bring some stipulated behaviour changes in the students. The task is not as simple as it seems to be. There are many intervening variables and obstructions. It may be realized soon by the teacher that when he has not been able to achieve his objectives, definitely there has been something wrong with his objectives, contents, and methods or his interaction with the students. A particular student may not be able to learn on account of his specific limitations. The teacher has to find out where the fault lies and then think for the possible remedy. He may arrange for the remedial education to any particular student or a group of

students for removing their specific difficulties and providing them adequate opportunities for proper growth and development.

Maxims of Teaching

Experience is said to be a good teacher and a trusted guide. Educationists and teachers engaged in the task of actual classroom teaching have evolved certain simple notions and working ways based on their own experiences which may prove quite helpful in the task of teaching. These are known as maxims of teaching. Some of the important ones of maxims of teaching are as follows.

From Known to Unknown

A known friend or an individual may work as a source for acquaintance with other people. Similarly, previous knowledge of a particular subject or topic may help us to collect new information and explore the unknown. After acquiring knowledge and skills in solving the problems on addition and subtraction, one can learn easily the essentials of multiplication and division. A wise teacher should always plan his teaching on the principle of proceeding from the known to the unknown. He should first try to acquaint himself with the entry behaviour, previous experience and all that is known by the pupil and then proceed on his task of teaching new things or deriving some changed form of behaviour from his pupil.

From Definite to Indefinite

Feedback	providing information regarding the student's performance to the student him or herself.
Giving hints	providing clues or suggestions but deliberately does not include the full solution
Instructing	the teacher tells the students what to do or explanation of how something must be done and why
Explaining	provision of more detailed information or clarification by the teacher
Modeling	offering behavior for imitation, including demonstrations of particular skills
Questioning	asking students questions that require an active linguistic and cognitive answer.

A good teaching should always lead from definite to indefinite. One can always trust the tested or definite, and therefore definite things, concepts, events or knowledge may be easily approached for catching the indefinite ones. Definiteness of the known facts in a multiplication table may help a student to acquire

the knowledge or skills concerning thousands of odd combinations related to multiplication, division, square or cube roots. Similarly, definite rules of the grammar may help a student learn the concerned language effectively. The effective psychological principles in teaching are listed below:

From simple to complex

It is always to begin with the relatively simple things than to fight with the unnecessary difficult and complex ones. Proceeding from simple to complex or easy to difficult always

provides an appropriate learning order or sequence. Such properly graded sequence may work as the schedules of automatic reinforcement as the grasp and understanding of simple ones not only motivates on individual to aspire more and little difficult but also equip him with the understanding and mastery of the difficult and complex.

From concrete to abstract

Abstract is confusing, difficult to understand and subjective. One may be easily bored, fatigued, perplexed and lose one's patience while attending to an abstract phenomenon. It is difficult to be remembered and applied in practical situations. In contrast, concrete is relatively simple, understandable or objective. Acquisition of a new knowledge or skill may become a simpler task when it is supported with concrete examples, objects and events. A good teaching should lead from concrete to abstract. The concrete material is to be shown, living examples are to be given and the children should be given maximum opportunities for acquiring direct experiences in order to make them able to learn the abstract concepts and experiences at the later stage.

From actual to representative

Actual or real objects, a piece of knowledge, principle and theorem are always better than their replica or representative in any process of teaching and learning. An on-the-spot experience of the thrills and life of a mountain lake, lonely desert, whistling trees and chattering birds is unmatched in terms of direct influence and educative value. Visit to an airport is going to have lasting impression and clarity in thoughts and concepts in comparison to mere talking about aeroplanes and aerodrome verbally or through illustrative aids.

From particular to general

Generalized facts, principles, concepts and phenomena are quit abstract in nature and, therefore, should not be presented in the beginning of a teaching. A teacher who begins by saying that matter has weight and then presents particular examples or provides demonstrations related with particular solids, liquids or gases is placing horse before the cart. One cannot generalize without facing or acquainting oneself with the particular instances leading to the generalization of the fact or behaviour. Therefore, a teacher should always begin with the learning or experiencing of the particular cases, facts or instances and then persuade his students to generalize or conclude.

From whole to parts

Whole is always not only greater than the parts but also more understandable, motivating and effective. Therefore, beginning should always be made with the whole, and then step-by-step it's various parts or constituents should be presented before the students. For example, in teaching the topic "Part of the flower", the beginning should be made with the actual presentation of the whole flowering plant and then gradually the knowledge of the elements

and functioning of the different parts should be presented. Similarly, a model of the water pump and the actual working of this pump should be demonstrated as a whole and then the study and working of its different parts should be taken step-by-step.

From induction to deduction

Induction is a way of providing a thing or statement by arguing if it is true for a particular case, and then it should be true for the next similar case, and so on. While employing it in teaching, a teacher is required to place particular instances, examples, facts or experiences before the students. Here the beginning is made by placing the generalized fact, principle, formula or rule before the students and then they are asked to verify the truth of the generalization by applying it in particular instances or examples. It is needless to say that all good teaching begins with induction is a way of discovering the knowledge.

From analysis to synthesis

Analysis refers to a process of breaking or separating out a thing into the simpler parts, elements or constituents in order to understand its structure or composition. For example, to understand its structure and working of a machine, the structure may be disassembled in terms of its various components or parts and then one can gather knowledge for these components. To know the composition of salt (compound or mixture) it may be analyzed into its elements and then knowledge about the composition or properties of various elements may be acquired. It refers to a process of combining the different elements or parts of a thing in totality. It is a formative approach quite applicable to the beginning of a learning or teaching act.

From empirical to rational

In a teaching-learning process, it is always safe to begin with what we see, feel and experience than with what we agree, generalize or explain. The former approach is empirical while the latter is rational. A teacher has to place facts, evidences, direct or indirect experiences, examples and instances full of objectivity and validity to arrive at some conclusion or develop a rational point of view in understanding the nature and concepts of the objects, people, events and phenomena.

From psychological to logical

Psychological point of view emphasizes the importance of psychological principles of learning and teaching in the process of education. Here, the child is the centre of education; his needs, interests, abilities and capacities are the deciding factors for the planning and organization of the teaching activities. The instructional goals are made to serve the cause of the child. The curriculum, teaching strategies, aid material and teaching-learning environment, all are set in view of the psychology of the child and teaching-learning. The proper organization and sequencing of teaching activities in terms of the organization of learning experiences,

teaching strategies, evaluation activities and feedback devices are very much essential for the effectiveness of a teaching act.

Teaching - A Noble profession

There are many professions which man has adopted according to his knowledge and ability. All professions are equally important for the human development. But teaching is the profession which has lead people on the high way of progress and prosperity. No development has been possible if there has been no teacher. All the sciences all the arts and crafts and all the civilizations and cultures are due to teaching. Teaching as a profession requires a great courage and moral strength, because it is not sound so far as financial side is considered as noble and respected profession. The teacher is the source of knowledge and guidance for human begins. All the secrets of nature have been revealed by the teacher to humanity.

- Teaching aims at enlightening and contentment of mind in men.
- Teaching broadens and illuminates the dark corners of human heart and mind.
- Teaching tries to show the humanity the road of progress and prosperity.
- Teaching does the work of character building. It refines the personality of man and raises in him the thirst of knowledge.
- Teaching tells man what is truth, beauty and goodness. It is a profession of teaching which enables man to be scientist, doctor, philosophers, lawyers, etc. With help of teacher a person leads a successful life.
- Teaching is not only trains a person for material benefits but it also arranges moral, spiritual and religious, training for man. So teaching is considered to be a noble profession.

Conclusion

The learner-centred psychological principles provide an essential framework to be incorporated in new designs for curriculum and instruction, assessment systems for evaluating educational goal attainments, as well as for the systemic redesign of professional development programs and educational system structures. The learner-centred psychological principles, which are consistent with more than a century of research on teaching and learning, are widely shared and implicitly recognized in many excellent programs found in today's schools. They also integrate research and practice in various areas of psychology, including developmental, educational, experimental, social, clinical, organizational, community, and school psychology. In addition, these principles reflect conventional and scientific wisdom. They comprise not only systematically researched and evolving learner-centred principles that can lead to effective schooling, but also principles that can lead to positive mental health and productivity of our nation's children, their teachers, and the systems that serve them.

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