# **PSYCHOLOGICAL FOUNDATIONS** **OF EDUCATION**

**1. MEANING AND NATURE OF PSYCHOLOGY**

The word “psychology” is derived from two Greek words, psyche (soul) and logos (study). So psychology literally means a “study about soul”. Psychology is an academic and applied discipline which deals with study of human behavior and mental process.

Psychology is the study of the thoughts and actions of individuals. It has been historically defined as the science of soul, the science of mind, the science of consciousness and the science of behavior. Let us examine these definitions one by one and see if any of them can enable us to understand accurately what psychology is and what it deals with.

* 1. **Psychology as a Science of Soul**

According to dictionary, psychology means “The science of soul” This is the oldest definition of psychology. The word “soul” is a very ambiguous and mystic term. As psychology aspires to be a science, it must adopt a scientific and not a speculative procedure. Science observes facts, and soul is not open to observation or experiment: The definition of psychology as the science of soul is, therefore, rejected as unscientific.

* 1. **Psychology as the Science of Mind**

To many, the word “Mind” is quite as vague as the word “soul”. If “Mind” means something mysterious inside us, it would be just the same as should, and this definition too, would deserve to be discredited. Ask the man in the street what he means by “Mind” and he will tell you that is it something in his body, or rather head, which thinks, feels and wills. So if we define psychology as the science of mind as a layman thinks, this definition have no improvement upon the previous definition of psychology as the science of soul.

But like Hume and Titchener, we take mind in the sense of mental process, this definition would certainly be better than the previous one. Psychology would then mean the science of mental processes. But what are the mental processes? The answer is that they are our processes of knowing, feeling and willing. The processes which are commonly said to go on ‘in’ our mind. Let us illustrate them by example. If a wasp stings my finger, I know what has happened to me, feel a pain, run after the wasp and will to kill it. I know, I feel and I will. The processes of the mind are facts. There are real happenings, and there is no mystery about them. This conception of the mind is sometimes called the empirical conception, because mental process can be experienced. It is also called the scientific conception because they can be observed and experimented upon.

To sum up, the definition of psychology as the science of mental processes seems to be quite reasonable and therefore commands assent. This is subject to one objection, however, according to this definition, psychology is concerned with the study of mental processes. Now, even a superficial consideration shows that a person can study only his own mental processes. To know the mental process of other persons and animals, one has to see what they do and “what they do” is called their “behaviour”. I can say that the man is grieved only when I see him weeping. We can know the mental processes of others only through the observation of their behaviour.

The definition of psychology as the science of mental processes is a half-truth.

* 1. **Psychology as a Science of Behaviour**

By ‘behaviour’ is generally understood anything that a living-does. It means “response”, “reactions” or “adjustments of an organism to various kinds of stimuli. A stimulus is the outside cause of mental process. It has already been said that in order to understand the minds of other persons and animals, we have to study their behaviour. Hence psychology has been defined as the science of behaviour — a definition that looks harmless enough.

Infect, there can be no objective or external behaviour without the subjective or inner mental processes of which the former is expression. Hence this definition of psychology as science of behaviour is rejected as one-sided.

“Thus psychology is concerned with the study of behaviour as well as mental process.”

**2. MEANING AND NATURE OF EDUCATIONAL PSYCHOLOGY**

In the previous section, meaning and nature of psychology are discussed. There are many branches of psychology. One of them is educational psychology.

**2.1 Definition of Educational Psychology**

This branch of psychology is the scientific study of educational problems. Educational psychology, as a science consists of theories and principles applicable to teaching-learning process. It provides theoretical knowledge for better understanding of teaching-learning process within the context of all its complexities. In a few words educational psychology is a study of learning and teaching process. As an applied science, it draws on theories, principles and practices of psychology and constructs application in the area of education. The educational psychology studies the child’s behaviour and suggests remedies to improve and to be an effective learner. The scope of educational psychology is confined to the study of individual’s behaviour within context of educational institutional framework.

 Dr. Abdul-Hai-Alvi writes in his book “Educational Psychology”, “Educational Psychology means such education which explains about all those changes which take place right from birth till becoming adolescent at various stages of development. This knowledge tasks about all good or bad effects which affect upon a child’s development, and in the light of this study forms such rules and regulations which are kept in mind during planning and management of the school. Study of human behaviour and inner mental processes are specifics of educational psychology.

**2.2 Scope of Educational Psychology**

There are many common tasks in teaching. Educational psychology gives us help in solving the problems that arise in performing those tasks. These problems can be found in all phases of teaching. Before teaching, during teaching, and post-instructional-and in all parts of teaching process-setting objectives, understanding student characteristics, appreciating the nature of the learning process, selecting and using teaching methods, and evaluating learning. Educational objectives reflect the purpose of schooling in general and of teaching in particular. Educational psychology deals with ways of stating, classifying, and using these objectives in teaching. Student characteristics must be considered in understanding the different ways students learn. How they develop intellectually, socially and emotionally. Individual differences effect the teaching, learning process. It also influence teachers choice of teaching methods and ways in which teachers use and combine these methods to achieve the best results.

Finally, educational psychology helps us evaluate learning by means of tests, projects, or demonstrations of various kinds. The teaching tasks and the problems related to them set the research agenda for educational psychologists as they investigate effective teaching and learning.

**3. ROLE OF EDUCATIONAL PSYCHOLOGY IN TEACHING LEARNING PROCESS**

Educational psychology does not treat teaching and learning as separate from each other. They are seen as closely related, mutually inclusive, interactive aspects of education.

Educational psychology plays a vital role in making teaching-learning effective. Educational psychologists examine several theories and techniques of learning and problem-solving. The teacher requires mastery over the subject matter and command over methods of teaching to effectively communicate and manage students in a classroom. A teacher must have adequate and sound knowledge of different theories and principles of teaching and learning for achievement of better results of teaching – learning process.

**3.1 Understanding the Learner**

Teachers are to understand students, their behaviour, their level of understanding, their growth & development and their psychology. The study of psychology is imperative for a teacher to function as behavioural scientist to understand influence of school environment on children behaviour, and to have a deeper and critical understanding of educational process.

**3.2 Understanding Instructional Problem**

Educational psychology facilitates a teacher to understand instructional problems and to promote learning in and out of class rooms. A teacher has to provide guidance and counseling to students. The intensive study of educational psychology adequately equips a teacher with skills of guidance and counseling. A teacher must have knowledge of growth and development of a child and his or her requirements at different stages of development. The child is the central theme in educational psychology. The main concern of an educational psychologist is to find out how a child learns effectively, what changes happen in a child as a result of learning, when a child learns, what motivates a child to learn and change, what a child wants to learn and why. There is always the same concern of an effective teacher.

**3.3 Understanding Educational Process**

The learners are also interested to have understanding of educational process. But their understanding of educational process may be considered as in complete and to large extent pre-scientific. Educational psychology enhances the student’s understanding of educational process and rectifies misconceptions. A teacher having analytical critical understanding of teaching – learning process is expected to be a more effective than a teacher having not studied educational psychology. Having sound knowledge and strong grip over the subject matter is not sufficient to make a teacher competent and effective; it is very vital and imperative to know theories, principles, practices and applications of educational psychology.

**3.4 Self-Understanding as a Teacher**

In addition to understanding of human behaviour and teaching-learning climate, self-analysis and self-understanding extend, convenience and comfort to manages class and ensures effective deliverance within the given learning situation. Knowledge of educational psychology enables a teacher to have better understanding of oneself, both as a person and as a teacher.

A teacher & possessing knowledge of educational psychology develops and adopts scientific attitude and view-point to deal with professional issues and academic pursuits. This encourages a teacher to proceed methodical while teaching students. A teacher learns to approach academic issues and problems with open-mind and clear-thinking.

The contribution of educational psychology to enhancement effectiveness and efficiency of teaching-learning process cannot be denied and ignored.

“Psychology serves as a foundational discipline in education just as physical sciences serve engineering”.

Just as the physical sciences serve engineering. Engineers designing a bridge or a refinery must have knowledge of physics and chemistry, of course but also must have aesthetic, economic, and political understanding. Similarly, teachers must combine insights from educational psychology with their thinking about what is good for their students and for society with sociological awareness of community dynamics, economic analysis of costs, and political knowledge about the connections between government and education.

Educational psychology can provide insight into many aspects of educational practices. It offers important ideas about learning and about influence in learning in families, business and industry, and the community. It also bears on educational administration, curriculum development, counseling, and other educational activities.

However, the study of psychology is essential for a teacher to understand learners, to provide guidance and counseling to them and to create positive & learning-teaching environment. Equipped with theories and concepts of educational psychology, a teacher can better understand himself or herself as a person and as a teacher. This enables a teacher to effectively manage a class. An understanding of the psychological implications of what a teacher attempts to accomplish enhances his/her competence and effectiveness.

**4. MEANING AND NATURE OF LEARNING**

Learning means to bring changes in the behaviour of the organism. Learning in psychology has the status of a core construct. Construct means an idea or image that cannot be directly observed like electrons or genes but which is inferred from the behaviour of the organism. “learning is a relatively permanent change in behaviour which is a function of experience”.

The words given above emphasize four attributes of learning as a process the first is that learning is a permanent change in behavior. It does not include change due to illness, fatigue, maturation and use of intoxicants. The second is that learning is not directly observable but manifests in the activities of the individual. The third attribute of learning is that it results in some change of permanent nature. The fourth and the last is that learning depends on practice and experience. Hilgard defined learning as, a change in a subject’s behaviour to a given situation brought about through repeated experience in that situation, provided that the behaviour change cannot be explained on the basis of native response tendencies, maturation, or temporary states of the subject (e.g. fatigue, drugs, etc).

**4.1 General Characteristics of Learning**

The following are the general characteristics of learning:

**i. Learning is Adjustment:** Learning involves adjustment of the individual to his environment. The individual must learn to adjust himself to the changes that take place around him.

**ii. Learning is Growth:** Learning must result in the growth of the child. An immature child is developed into a mature person through the process of learning.

**iii. Learning is Organizing Experience:** Learning is not like adding one experience to the other it is rather, organizing the new experience with the old ones, thus giving rise to a new form of behaviour. Thus, learning involves the proper organizing of experiences in manner.

**iv. Learning is Purposeful:** The more intense the purpose of the individual, the more rapid the learning. Lack of purpose in learning will hinder learning. Thus, purposeful learning is always more rapid and permanent.

**v. Learning is Active.** Better learning will take place only if the learner is actively engaged in the learning process. Thus, active participation of the pupils is essential in the learning process. **vi. Learning Affects the Conduct of Learners:** Learning affects individuals to adjust himself to the environment. This is brought about through some sort of change and modification of one’s behavior. Thus the behaviour or conduct of the individual undergoes change on account of learning.

**vii. Learning is the Product of the Environment:** Learning is essentially an adaptation and adjustment to the environment. Thus, environment has a great influence upon learning; learning cannot be separated from the environment.

**4.2 Laws of Learning**

Learning is a fundamental ingredient in the education of a child. Therefore, a teacher must understand fully, how learning takes place in the best possible manner, in this connection, it is imperative that the teacher should know what are called ‘Laws of Learning’ as given by Thorndike and others. The fundamental laws of learning are: (i) Law of Readiness (ii) Law of Exercise (iii) Law of Effect

**(i) Law of Readiness:** This law emphasizes the importance of readiness to learn. “When a person feels ready to learn or to act, he learns or acts, more effectively and with greater satisfaction than when not ready”. This implies that the learner must be mentally prepared to learn. This emphasizes the importance of motivation in learning. The learner must be brought in the proper frame of mind, and his curiosity must be increased for bringing about effective learning.

**Educational Implications**

1. Arouse child’s readiness to learn by motivating the child before he undertakes any teaching work.

2. The curricular activities should be according to the child’s mental level of maturity. This will ensure readiness as well as arouse curiosity for new things to be learnt.

**(ii) Law of Exercise:** Broadly speaking, this law implies that learning takes place by exercising, i.e. by doing or by actively participating in the performance. We learn what we do, and we do not learn what we do not do. That is why this law is also called ‘Law of Use’ and ‘Law of Disuse. (i) Law of Use, ‘When a modifiable connection is made between a situation and a response, that connections strength is decreased, this emphasizes the need and importance of practice. In other words ‘Practice makes perfect’. (ii) Law of Disuse. ‘When a modifiable connection is not made between a situation and a response over a length of time, that connection’s strength is decreased, this law implies the negative value of lack of practice.

The educational implications of the laws of exercise are great. This emphasizes the value of repetition, drill and practice for memorizing and mastering of something. This also emphasizes that much time should not elapse between one practice and the subsequent one, because long disuse may cause forgetfulness. The teacher must ensure that the act of repetition is carried out with a pleasant effect. An act of repetition, which is accompanied by a satisfying state, strengthens a connection.

**(iii) Law of Effect:** This law implies that if our efforts are accompanied by a feeling of achievement or satisfaction, we are further inspired to learn, and therefore, effective learning takes place, if our efforts are not accompanied by a feeling of satisfaction, not much of real learning will take place. In other words we may say that a response, which gives achievement of the goal and thus provides satisfaction, will be stamped in, while those, which are accompanied by dissatisfaction, will be stamped out.

Thorndike defines it as follows: “When a modified connection between a situation and response is made, and is accompanied or followed by a satisfying state of affairs, that connection’s strength is increased, but when made and accompanied by an annoying ‘state of affairs, its strength is decreased”.

 Thus, the learners, feeling or emotional state affects learning. In other words, success and failure condition the learning to a great extent.

**Education Implications**

1. Children get to form good habit and attitude by associating with reward, satisfaction and praise.

2. Undesirable attitudes or acts of behaviour can be removed by associating them with unsatisfying desirable condition.

3. The acts of rewarding and punishing take this law into consideration.

4. Behaviour problems can be improved by associating them with annoying state of affairs.

5. Interest is directly related to this law. Children get interested in things which bring pleasant results.

**4.3 Conditions of Learning**

Now, learning depends upon a number of factors or conditions. The more important one’s discussed below:

**i. Clarity of Presentation**

The subject matter must be presented clearly before the students, so that they understand it properly. This is a very important condition of learning. Let us analyze the teaching-learning process. The teacher has a mental image of the subject matter that he likes to teach to the students. He uses the media of verbal explanations aided by various types of devices of teaching and audio-visual aids to get this mental image of knowledge conveyed to the minds of the pupils. The success of teaching as well as learning will depend upon the clarity of this mental image. If a clear image is formed in the minds of the students, the impression on their mind will clear and lasting, which means better learning. Therefore, the presentation of the subject matter should be as clear as possible to make learning effective and successful.

**ii. Providing Direct Experiences**

Nothing teaches like an experience and personal observation. Therefore, wherever possible, the students should be taught by the method of personal observation and experience. For example, no amount of verbal explanation will give us a clear picture of the Tarbela Dam; the best way, to know and appreciate it is, to see it personally. Let the students observe and experience; and rest assure, true and effective learning will automatically take place.

**iii. Level of Intelligence**

Learning, to a considerable extent, depends upon the level of intelligence of the learners. Though the teacher cannot do much in this regard because the level of one’s intelligence is determined by heredity, the knowledge of the level of intelligence is determined by heredity, the knowledge of the level of intelligence of the learner can greatly help the teacher to devise methods of teaching suited to the learner’s level of intelligence. For example, a student with high IQ can easily learn through verbal explanations of the teacher; but a student with comparatively low, IQ needs the help of audio-visual aids and other devices of teaching in learning. The methods of teaching, therefore, have to be adapted to the level of intelligence of the learners.

**iv. Academic Atmosphere**

A very important and significant condition of learning is the provision of academic and intellectual type of atmosphere for the learners. The academic type of atmosphere prevailing at home and the school is a perpetual inspiration for the children to learn more and more. The reason is that the children imbibe an intellectual type of frame of mind from the academic atmosphere and that type of atmosphere can be created by providing a separate room for a study, providing books and journals and having intellectual talks and discussions. A good school library and a reading room can go a long way in creating academic type of atmosphere in the school.

**v. Effective Methods of Teaching**

Better and effective methods of teaching are essential for learning. Mostly, poor learning is the result of faulty methods of teaching. Instead of the old and traditional methods of teaching, modern and psychological methods of teaching should be used. A good method of teaching is that which makes the subject-matter is not clear to students on account of employing faculty’ methods of teaching. Best methods of learning will result in best type of learning.

**vi. Reinforcement**

Reinforcement is a procedure of associating pleasant or unpleasant experiences objects or events with the responses, made by the learner. The basic idea of reinforcing a response is either to strengthen a response or to weaken it. Appreciation and rewards help in the strengthening of certain behaviour in the child punishment and reproof help in the elimination of undesirable behaviours in children. Thus, reinforcement can be positive such as appreciation and rewards, and negative such as reproof and punishment. Reinforcement plays a significant part in learning and therefore, the teacher should make use of this technique in the learning process.

**vii. Practice**

There is a great truth in the dictum that ‘Practice makes a man perfect’. We learn things by doing them over and over again. A long experience makes a person skilled and proficient, practice therefore, is one of the most important conditions of learning.

 **viii. Motivation**

Motivation is one of the basic conditions of learning. Motivation, in simple language, means interest. Learning is directly proportional to our interest is learning. Therefore, the fast and foremost faction of a teacher is to create interest of the students in learning. The students must be brought in the proper frame of mind before they can learn anything effectively and successfully. The teacher to motivate the students for acquiring the new knowledge can use a number of devices. This includes questioning and the use of audiovisual aids. Successful motivation means successful learning.