

UNIT I: EDUCATION & PSYCHOLOGY

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E-Content

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UNIT I: EDUCATION AND PSYCHOLOGY

INSTRUCTIONAL OBJECTIVE

- To develop appreciation and understanding about the Concepts of Psychology and Educational Psychology and implications of human diversity for organizing educational programmes.

CONCEPT OF EDUCATION AND PSYCHOLOGY

Human life is two aspects the biological and the sociological. While the biological aspect of human life is maintained and transmitted by nutrition and reproduction, the social aspect of human life is maintained and transmitted by education. Man is distinguishable from the lower animals because of his educable ability. He is endowed with intelligence; he wants to remain active, energetic and even original. The list of human achievements is very big. How has all this been done? through education. The concept of education is like a diamond which appears to be of a different colour (nature) when seen from different angles (point of view or philosophy of life). The reason for different interpretations/definitions to education, are,

- The complex nature of human personality
- Complex nature of environment
- Different philosophies of life
- Different educational theories and practices.

The Education Commission (1964-66), the very aptly began its report with these words, “the destiny of India is now being shaped in her classrooms”. The NPE (1986) also observed, “The country has reached a stage in its economics and technical development when a major effort must be made to derive the maximum benefit from the assets already created and to ensure that the fruits of change reach all sections. Education is the high way to the goal. According to thinkers in ancient India, *Vidya* / Knowledge /

learning / education was considered the 'third eye' of man, which gives him an insight into all affairs and teaches him how to act; it leads us to our salvation in the mundane sphere, it leads us to all round progress and prosperity.

DEFINITIONS OF EDUCATION

1. *"Building of human mind and spirit"*
- Sri. Anrobindo Ghosh (1872-1950)
2. *"Helping the individual to flower greatly in love and wisdom"*
- Jidhu Krishnamurti
3. *"Enabling an individual to win victory over the five enemies-lust, anger, greed, infatuation and ego. (kam, krodh, Lobh, Moh, Ahankar)"*
- Guru Nanak (1469-1539)
4. *"Training the intellect refinement of the heart and discipline of the spirit".*
- Dr. S. Radhakrishnan (1888-1975)
5. *"Purification of the mind and the heart"*
- Rama Krishna Paramahansa (1836-1886)
6. *"Manifestation of the perfection already in man"*
- Swami Vivekananda (1863-1902)
7. *"Leading from the unreal to the real, from darkness to light, from death to immortality"*
- Brihadars Upanishad, (1000 BC)

Some great western thinkers on education

1. *'Learning to be an active assimilation of general ideas which could be applied to life'*
- Alfred North Whitehead (1861-1947)
2. *'Attainment of a sound mind in a sound body'*
- John Locke (1632-1704)

3. *'Helping in the complete unfolding of the child's individuality'*
- Maria Montessori (1870-1952)
4. *'Natural, harmonious and progressive development of men's innate powers'*
- Johann Heinrich Pestalozzi (1746-1827)
5. *'Developing the body and the soul of all the perfections which they are capable of'*
- Plato (427-347 BC)
6. *'Developing four qualities in child-courage, intelligence, sensitiveness and vitality'*
- Bertrand Russell (1872-1970)
7. *'Creation of a sound mind in a sound body'*
- Aristotle (384-322 BC)
8. *'Development of the whole man'*
- John Amos Comenius (1592-1670)
9. *'Increasing Social Efficiency'*
- John Dewey (1859-1952)

Mahatma Gandhi remarked, 'By education I mean all-round drawing out of the best in the child and man-body, mind and spirit. Literacy is not the end of education nor even the beginning. It is one of the means whereby man and women can be educated. Literacy in itself is no education'.

Functional and operational definition of education

Education is a process which draws out the best in the child and adult with the aim of producing well balanced personalities: culturally refined, emotionally stable, ethically sound, mentally alert, morally upright, physically strong, socially efficient, spiritually upright, vocationally self sufficient and internationally liberal.

Narrower Meaning of Education

In a narrower sense, education is equal to schooling. S.S. Mackenzi says, “In narrow sense, education may be taken to mean any consciously directed effort to develop and cultivate our powers”.

The wider meaning of education includes the following.

1. The process of education is a lifelong process from infancy to old age or from ‘womb to tomb’.
2. It includes experiences gained through the various formal and informal agencies of education. We learn from home, school, church, cinema, club, press, travel, medias, physical and social environment.
3. We receive education many a time when we are not conscious of the fact.
4. All experience is said to be educative.

PSYCHOLOGY

Psychology is a combination of two words *psych* means soul and *logos* means science. During the development of psychology it go through different meanings like *science of soul*, *science of mind*, *science of consciousness* and *science of behaviour*. Let us look in that journey of psychology.

- **Psychology as a Science of Soul:** Greek philosophers *Plato* and *Aristotle* considered psychology as a science of soul. During these time psychology is one of the branch of philosophy. The nature of soul could not be defined in this time.
- **Psychology as a Science of Mind:** *Immanuel Kant*, a German philosopher one of the proponent of this view. He failed to give an exact description to mind. Therefore this view did not get acceptance for long time.
- **Psychology as a Science of Consciousness:** During 19th century, *William*

Wundt and *William James*, argue that psychology is a science of consciousness. But if we consider psychology as a science of consciousness we neglecting the other parts of mind like sub conscious and unconscious.

- **Psychology as a Science of Behaviour:** During 20th century psychology deemed in the place of a pure science. *J.B. Watson* is one of the major contributor for the same.

R.S. Woodworth commended on the changes of definitions of psychology: “First psychology lost its soul, then it lost its mind, then it lost its consciousness, it still has behaviour of a sort”.

Definitions

Educational psychology deals with the problems, process and products of education

- Skinner : “Educational psychology is that branch of psychology which deals with teaching and learning”
- Crow and Crow- : “Educational psychology describes and explains the learning experiences of an individual from birth through old age”
- Peel : “Educational psychology is the science of education”
- Ausubel : “Educational psychology is an amalgam of all branches”

Nature and Scope of Educational Psychology

Educational psychology, the applied behavioural science, uses the principles and techniques of psychology and employs scientific methods and scientific approaches. It influences all the theories and practices of education, hence it is “the science and technology of education.” Kurt Koffka says: “Psychology is the scientific study of behaviour of living creatures in their contact with the outer world.

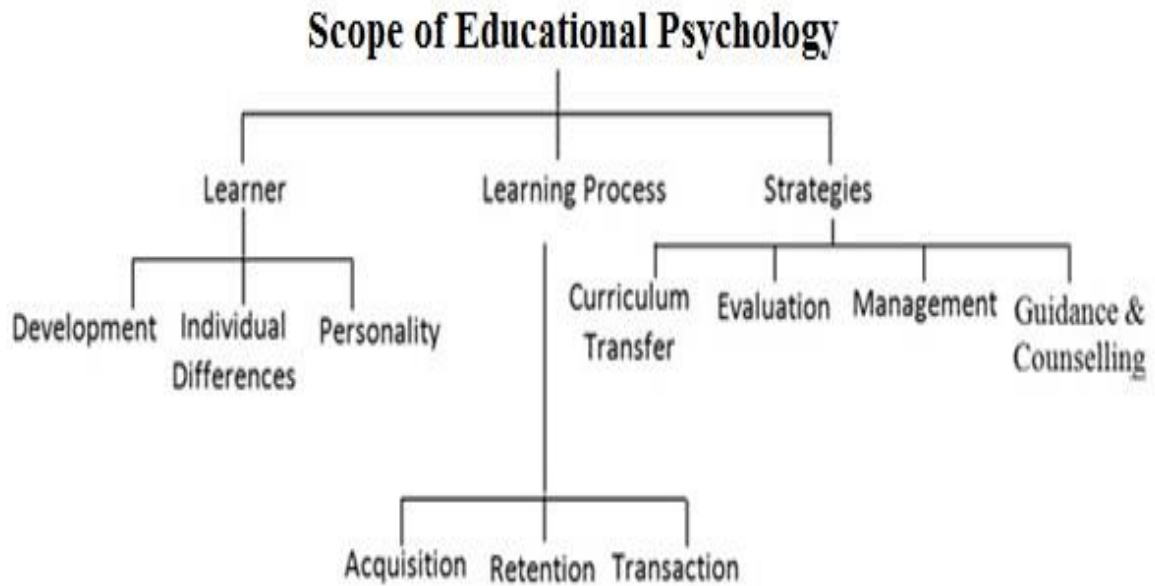


Figure 1.1: Scope of Educational Psychology

Meaning of Educational Psychology

Psychology is intimately connected with education. It is inseparable. Psychology is the study of human behaviour and education is the process of modifying human behaviour. Educational psychology deals with human behaviour and its modification through learning. Educational psychology is concerned with the application of principles and techniques of psychology to solution of the problems confronting the teacher.

Branches of Psychology

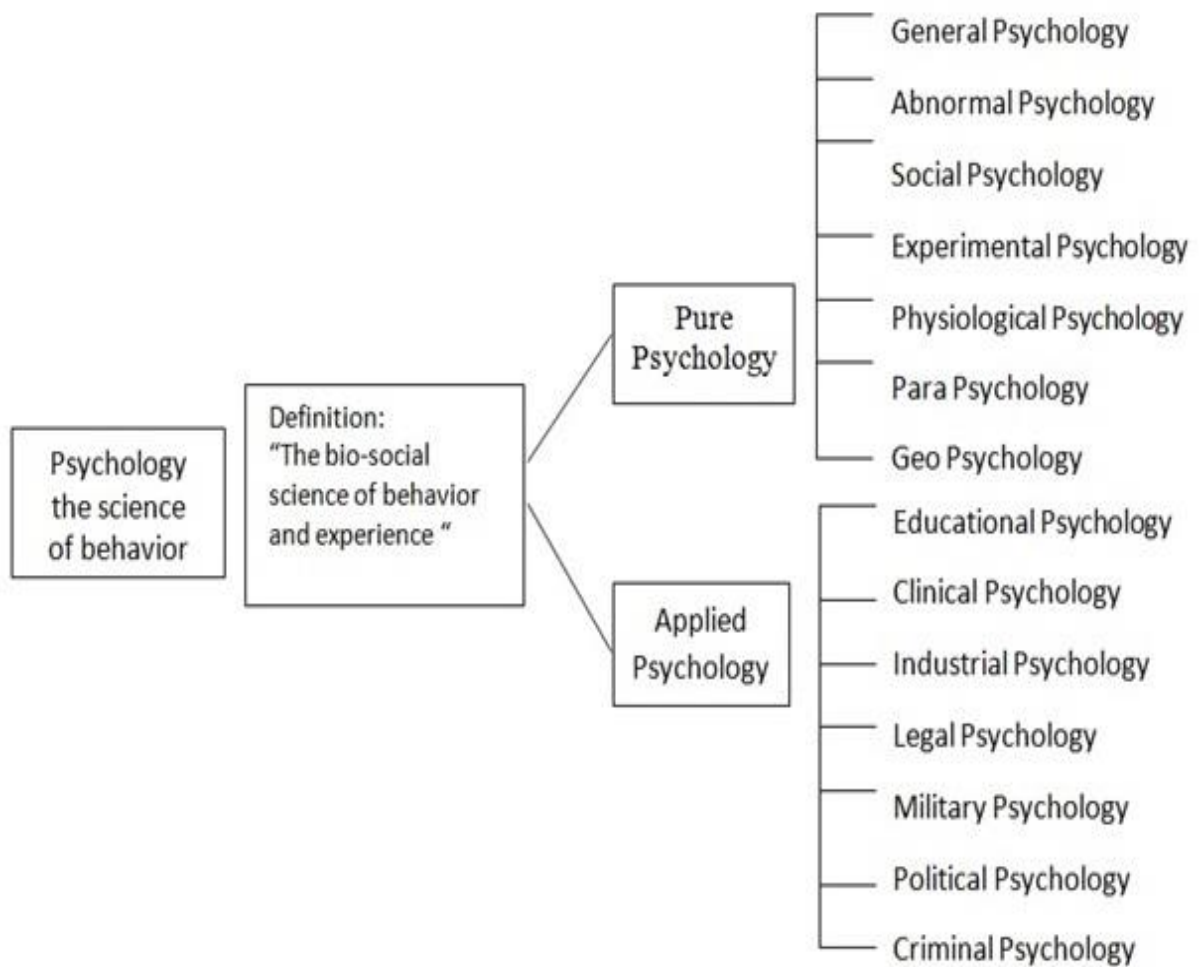


Figure 1.2: Branches of Psychology

Contributions of Educational Psychology to the theory of education

- To understand developmental characteristics (Infancy, Childhood, Adolescence)
- To understand the nature of classroom learning
- To understand individual difference.
- To understand effective, teaching methods
- To understand problems of children
- Knowledge of mental health i.e., ill health, mal-adjustment etc.
- Curriculum construction
- Measurement of learning outcome (Psychological tools, Evaluate teacher performance)
- Research (Research studies in the classroom teaching)
- Guidance for the education of exceptional children.
- Helps to develop positive attitude
- Understanding group dynamics

Contribution of Educational Psychology to the Practice of Education

- Problem of discipline
- Use of AV Aids
- Democratic administration
- For scientific Time table construction
- Co-curricular activities
- Use of innovations like activity centered, learner centered teaching
- Production of textbooks

Objectives of Educational Psychology

- To provide teachers with some basic skills related to teaching
- To give teacher's guide lines to solve problems of teaching/learning process
- To help teachers to understand the scientific knowledge
- To instill in teachers a spirit of inquiry for their professional growth.

Limitations of Educational Psychology

- Not a accurate/pure science
- Individual difference-not practicable to all situations/individuals
- Performance of human beings varies from time to time
- Most of the psychological experiments conducted in animals.
- Success of teachers work depends on natural aptitude and experience and personal interaction.

RELATIONSHIP OF EDUCATION AND PSYCHOLOGY

Psychology acquired separate status very recently. Formerly it was studied as a sub-branch of philosophy. **William Wundt** is considered as the father of experimental psychology. The roots of Psychology could be traced back in philosophy and science. When physiologists of the late nineteenth century began to use scientific methods to study mind, later on Psychology became an independent scientific discipline.

Scientific Roots of Psychology: By nineteenth century, psychologists were progressing than philosophers in answering questions about the nature of psychological processes. Imam Ghazali says: "Education is a process which enables the individual to distinguish between true and false, good and bad, right and wrong"

Stephen says, "Educational Psychology is the systematic study of the educational growth and development of a child". Some psychologists called psychology as a branch of education, as James Mill implied in the early nineteenth century. However, some other psychologist disagree with them, who were familiar with the history of psychology and continuing, links between psychology and education. They defend it with the comparison of historical and contemporary relationship between education and psychology. One question, which is frequently asked that a field like psychology, which is divided within self, could be used and applied constructively to a practical field like education. It is the fact that we are dealing with two different fields; one is concerned with human ends and the means of promoting them, the other with understanding and knowledge of human experience and actions. Today it is acknowledged widely that psychology has influenced education in the past.

Why we study psychology in education?

It is very essential for a teacher to teach his students according to their mental abilities. Educational psychology helps the teacher in doing so. It enables the teacher to teach *where* and *how*. Psychology gives education the theory of individual differences that every child has different mental ability and learns with different pace. Today in modern era, education psychology is the foundation of education. Psychology effect education in every field of teaching learning process.

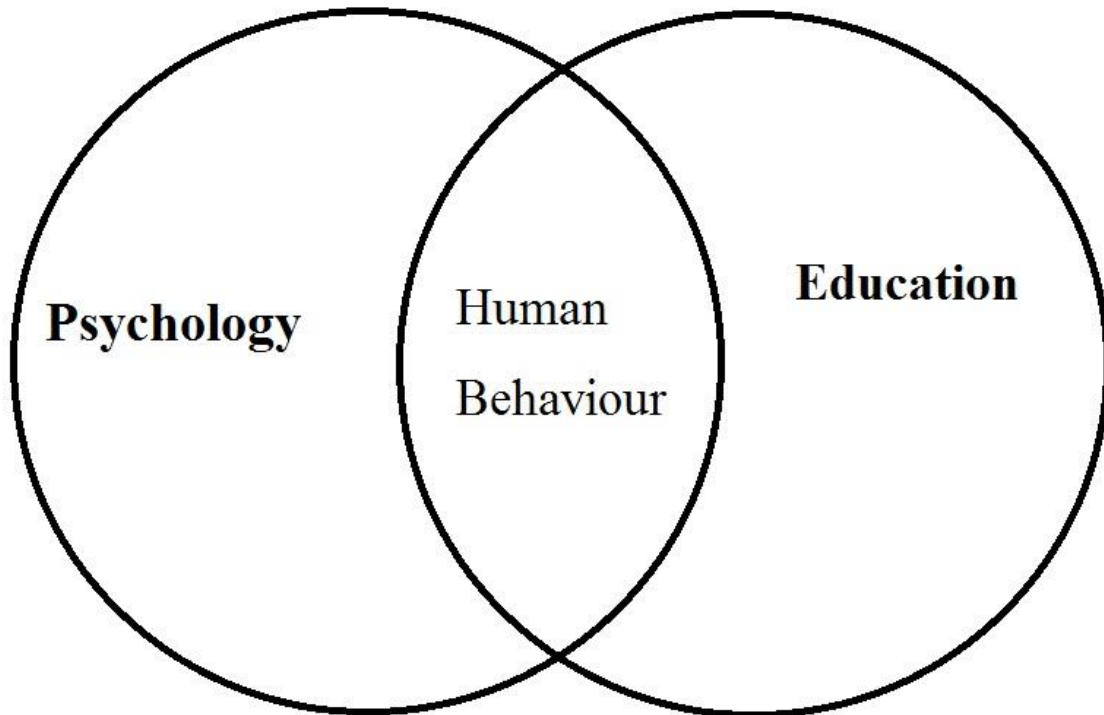


Figure 1.3 Human Behaviour as a common subject for both Education and Psychology

- Psychologist suggest use of different methods in teaching learning process to achieve better result
- Psychologist emphasis on motivation and readiness in class room
- Psychology introduce new theories of learning in education
- Psychology emphasis on activity base teaching learning process
- Use of audio-visual aid in teaching learning process
- Psychology is the study of human behaviour while Education is the process of modifying human behaviour so both deal with human behaviour in different ways. Figure 1.3 shows this relationship.
- Educational psychology deals with educational problems
- General psychology deals with different problems other than education

Psychology as ‘Science of Behaviour’

J. B. Watson, the father of behaviouristic school of psychology, termed psychology as the science of behaviour. The meaning of education is modification of behaviour for one’s adjustment. When we study the behaviour of the child and teacher in the educational situations, for solving educational problems, we take the help of educational psychology. The role of school is to help in harmonious development of the personality of the child. So it becomes the duty and task of the teacher to guide child according to psychological norms. Therefore, for every teacher study of psychology is an essential item. So we can say that educational psychology is application of psychology and its principles in educational situations. There is an inner link between education and psychology.

- According to B.F. Skinner, “Educational psychology covers to entire range of behaviour and personality as related to education.”
- According to Aristotle, “Education is the creation of a sound round in a sound body.”
- According to Pestalozzi, “Education is the natural, harmonious and progressive development of man’s innate powers.”

How far education and psychology are related to each other?

- Education is concerned with aims, ideals and standards of life and psychology determines whether these aims are attainable or not.
- Education demands the teacher to know the child as well as the subject matter of instruction, where the psychology helps to know about the child.
- Psychology also helps the teacher to teach effectively undertaking effective and appropriate teaching techniques.

- **Psychology and Aims of Education:** Psychology helps the educator in the realization of educational aims by helping him to bring out improvement in the quality of instruction by providing him ability and insight into the child's attitudes, ideas, aptitudes, interests and emotions etc.
- **Psychology and Teacher:** Psychology helps the teacher to understand the learner, learning process and the learning situations. Psychology states that teacher should have sympathetic and affectionate attitude towards the learner.
- **Psychology and Curriculum:** Psychology suggests that the curriculum should be integrated, flexible, co-related and child-centred. There should be different co-curricular activities in the school. Co-curricular activities are important media for *sublimation* of instincts and for the development of personality.
- **Psychology and Methods of Teaching:** Various methods of teaching like Project method, Heuristic method, Montessori Method, Play-way method are based on sound psychological principles.
- **Psychology and Text Books:** Psychology tells the teachers and the students that text books should be attractive, well illustrated and according to the mental level of the pupils.
- **Psychology and Innovations:** Psychology has made significant contribution by introducing innovative ideas for improving the process of teaching and learning such as - Activity-centred teaching, Micro-teaching (Dwight W. Allen), Programmed instruction (B.F. Skinner), Interaction analysis (Ned A. Flanders).
- **Psychology and Audio-visual Aids:** Psychology states that to develop interest among students, teacher should properly use audio-visual aids. Use of audio-visual aids makes the learning easy, interesting and effective.
- **Psychology and Time Table:** Time table is prepared according to the psychological principles. While preparing it, the teacher should keep in mind the relative importance of different subjects and their toughness and the fatigue of students.

- **Psychology and School Administration:** Psychology helps in solving problems of administration by mutual discussion among various agencies of school. It provides a scientific basis for the supervision of instruction.
- **Psychology and Discipline:** Psychology tells us the ways of dealing with problems of delinquent, backward, handicapped and gifted children and helps in maintaining discipline.
- **Psychology and Evaluation:** Psychological tools help the teacher to evaluate the achievement of the pupils and suggests improvements in examination.

MAJOR APPROACHES TO EDUCATIONAL PSYCHOLOGY

A group of psychologists having similar points of views and making similar approaches to study human mind or behaviour constitute a school of thought in psychology.

Major Approaches	Behaviourism	Cognitive	Psychoanalytic	Humanistic	Neurobiological
Chief Exponents	John. B. Watson, Skinner, Pavlov, Thorndike, Guthrie, Hull	Jean Piaget, Bruner, Ausubel, Wertheimer, Kohler, Lewin, Tolman	Sigmund Freud, C.G. Jung, Adler, Erikson	Carl Rogers, Abraham Maslow, Combs. A, Glasser. W	Ramony Cajal, Mc. Connel, Hyden, Flexner
Focus	Overt Behaviour & S-R Conditioning	Cognitive Process & Schemata Development	Unconscious Motivation & Libidinal Orientation	Personalised Experience & Self Actualisation	Nervous System & Structure and Functions of Brain

Table 1.1: Major Approaches to Educational Psychology

CONCEPT AND FUNCTIONS OF EDUCATIONAL PSYCHOLOGY

Eight functions (what intended to do) of educational psychology are as follows:

1. The first function is to afford a thorough knowledge of the nature of the child.
2. The second function is to provide an understanding of the nature, aims, and purposes of education.
3. The third function is to acquire familiarity with the technical vocabulary (like motivation, feedback, readiness).
4. The fourth function is to provide a significant knowledge of the developmental process with particular emphasis upon the promotion, guidance, and control of mental and moral aspects in order that the nature of man maybe understood and his original endowments maybe used to develop his latent possibilities.
5. The fifth function is to present the theories underlying the measurement and evaluation of mental abilities, aptitudes, educational achievements, interests, and personality organization.
6. To present the principles and conclusions regarding the prevention of all types of maladjustments together with the approved practices for achieving satisfactory adjustments.
7. To inculcate in the prospective teacher the realization that the most essential purpose - *character formation*.

INDIVIDUAL DIVERSITIES - NATURE VERSUS NURTURE AND UNIVERSAL VERSUS CONTEXTUAL

The nature vs. nurture debate is one of the most enduring in the field of psychology. How far are human behaviours, ideas, and feelings, INNATE and how far are they all LEARNED? These issues are at the centre of the ongoing nature versus nurture debate or controversy. In the 17th century the French philosopher **Rene Descartes** set out views which held that we all, as individual Human Beings, possess certain in-born ideas that underpin our approach to the world. The British philosophers **Thomas Hobbes** and **John Locke**, on the other hand, emphasised the role of experience as fully contributing to behavioural development.

Heredity (Nature) and Environment (Nurture)

If you look around your classroom, you can see that some of you have dark skin, others have light coloured skin, colour of eye and hair are different, some are tall and others are short, some are impulsive while others are talkative, some of them have musical talent or artistic talent. Despite these variations, there is a unifying factor, i.e., we all are homosapiens. What causes us to be different from each other but more like each other? It is due to the interaction between Heredity (Nature) and Environment (Nurture).

Heredity (nature) is the inherit quality or tendencies. It is the sum total of physical and mental traits that an individual inherits from his/her parents or ancestors through genes in the chromosome. Heredity may be two types- *Biological heredity* and *Social heredity*. Biological heredity is the genetic potential acquired by an individual from his ancestors. E.g. eye colour, skin colour, height, weight etc. Social heredity refers to the cultural surrounding of an individual. E.g. language we speak, customs, traditions etc represent the accumulated wisdom of the past handed down to the present generation. That is children are born with biological heritage while they are born in to a social heritage.

Environment (nurture) include the factors that surrounded by the organism from conception to death. That is health status of the mother, nutrition, medicines, etc affect the prenatal baby. Important environmental factors affecting development of the children are family, peer group, school, poverty, unemployment, famine, pollution, war, population explosion etc. In the words of G.W. Allport, "It is the same fire that melts the butter, hardens the egg." There for an individual is the product of both heredity and environment.

Philosophers and psychologists have debated the relative roles of nature and nurture in human development for centuries. The seventeenth-century English philosopher **John Locke** described a young child's mind as a *tabula rasa* (blank slate) upon which the child's experiences are written. **Jean Jacques Rousseau**, an eighteenth-century French philosopher, also argued that human development was primarily a function of experience. He believed in the existence of a natural, unspoiled state of humankind that is altered and corrupted by modern civilization. In contrast, nineteenth-century scientists such as **Gregor Mendel**, **Charles Darwin**, and **Sir Francis Galton** highlighted the importance of heredity in shaping development. While all of these scientists provided meaningful insights into the role of heredity and the environment, modern researchers have sought to further explore the dynamic interactions between nature and nurture that shape human development.

The twentieth century saw the evolution of various theories of development that differentially emphasized the role of biological versus environmental factors. These theories can be classified according to four major developmental frameworks: (1) environmental learning (empiricism), (2) biological maturation (nativism), (3) cultural context, and (4) constructivist.

1. The environmental-learning framework, best exemplified by the behaviourist theories of **John B. Watson** and **B. F. Skinner**, underscores the paramount importance of empirical learning in development. According to behaviourist

theories, learning is characterized as the process by which an organism's behaviour is shaped by experience. While environmental-learning theorists do not completely discount the role of innate factors, they argue that it is the external environment that has the greatest influence on development.

2. Biological-maturationist theories represent the opposing swing of the theoretical pendulum. This framework posits that biologically and genetically predetermined patterns of change have a greater impact on development than environmental influences. During the early twentieth century, theorists such as **Freud** and **Arnold Gesell** proposed that experiential influences were secondary to innate maturational mechanisms. This perspective regained popularity in the late twentieth and early twenty-first centuries as a result of major advances in genetic research, as well as the introduction of twin studies and behavioural genetics.
3. The cultural-context perspective of psychologists such as Lev Semyonovich Vygotsky and Barbara Rogoff contends that while both biological and experiential factors exert important influences on development, such factors are filtered through an individual's social and cultural context.
4. Finally, the constructivist, or interactionist, approach stresses the balanced interaction of nature and nurture in forming the foundation for developmental change. In such a framework, both genetics and environment play an important role, and it is the dynamic relations among such internal and external influences that ultimately shape development. Piaget's theory of cognitive development asserts that children construct their knowledge based on the combination of input received from both maturational and environmental sources.

IMPLICATIONS OF HUMAN DIVERSITY FOR ORGANIZING EDUCATIONAL PROGRAMMES

It is often said that no two individuals are exact duplicates; they differ from each other in some way or the other. Hence the job of the psychologist is to identify and understand this uniqueness in individuals. Such a similarity or difference between persons reveals individual differences. It happens in our day-to-day life when we see people around us. A question comes to mind; how and why people appear similar or different to each other? For example when we think about their physical appearance, we often ask ourselves why some people have dark or fair complexion, why some people are tall and some are short, why some are thin and why some are very fat.

It has been observed that if we collect information about people's characteristics from a large sample and examine the pattern of distribution we find that a large majority of the people fall in the middle range while a small proportion lies in extreme categories. For example, most of the people fall in the category of average height and very few are very tall or very short. This holds true for many more characteristics including intelligence and other psychological attributes.

The environment is responsible as how we are reared, the kind of atmosphere at home, whether it is liberal or strict, the type of education that we get, what we learn from people, around us, books, cultural practices, peers, teachers and media. All these aspects refer to 'environment' which help in developing our potentials. Environment, by providing models and other opportunities, helps us develop many traits and skills. Our inheritance alone cannot decide what we become but our environment also contributes. We know the example of Dr. Babasaheb Ambedkar, who was born in a very poor family but, with the right education and environment, became a great lawyer and also designed the Constitution of India. The latest and most well known example would be of our former President Dr. A.P.J. Abdul Kalam. You can also remember many such examples, who did not become great because of inheritance but because of the environment. Now

you know that our genetic codes vary. At the same time, surrounding environment also differs from person to person. It sets limits or defines a range by offering different opportunities. That is why the pattern of development of each of us is different from others. It makes us think why we are similar in certain ways and different in others.

Dimensions of differences in psychological attributes

There are a variety of individual differences that must be of concern to classroom teachers. Some of the most prominent are academic ability (or intelligence), achievement level, gender, learning style, and ethnicity and culture. In general, there are different approaches for dealing with individual differences among students.

Modifying Events of Instruction

One strategy for dealing with individual differences is to develop or modify the events of instruction so that they specifically address individual differences. This is exemplified by the 4MAT system developed by **Bernice McCarthy**. The 4MAT system is a direct instruction approach to teaching that utilizes research on brain lateralization dominance and learning style to identify specific instructional events that will be attractive to a specific type of student. The 4MAT system seems to have considerable face validity, although there is not the a widespread research base to support it.

Grouping

There are four major approaches to grouping: between-class ability grouping (often referred to as levelling or tracking), within-class ability grouping, cooperative learning, and individualized instruction.

With respect to **between-class ability grouping**, research does not support this strategy in terms of learning for all students. Students assigned to the top level (perhaps

the top 10 to 15%) seem to benefit from this type of grouping, but middle- and lower-ability students do not. And although this is still a popular practice in school education, some school systems are opting to eliminate it.

Within-class Ability Grouping: On the whole, research tends to support within-class ability grouping as beneficial to the learning of most students. It seems to be more flexible and, consequently, less stigmatizing. If within-class ability grouping is going to be considered, the teacher may want to have only two groups since it will make the grouping process easier to manage.

Cooperative Learning: Cooperative learning is an instructional strategy in which students are placed in heterogeneous groups. Cooperative learning is one of the best researched educational innovations of the last two decades. When implemented properly, it can have dramatic effects on student achievement.

Individualized Instruction: While individualized instruction is logically the best way to deal with individual differences, in practice it is very difficult to accomplish. One innovation that may change that is computer-assisted instruction (CAI). On the whole, CAI has not yet delivered on its promise to revolutionize teaching and instruction.

Mastery Learning: A third strategy for dealing with individual differences among students is to change the system within which instruction is provided. This is the strategy used by mastery learning. In mastery learning, the teaching environment is structured so that students develop mastery of prerequisite skills before they begin a new lesson. In practice, mastery learning has not demonstrated any superiority over traditional instruction when it is implemented on an individual classroom basis. However, it has been shown to dramatically improve student achievement when it is successfully implemented on a school-or district-wide basis.

DIMENSIONS OF HUMAN DIVERSITY

Cognitive Abilities

The term “intelligence” is vague and ambiguous in its meaning. Psychologists have been interpreting the term in different ways and are in disagreement on the meaning of the term intelligence. In psychological literature, intelligence has been treated as a construct, no one knows what intelligence is. Due to the vagueness, in recent years concept of intelligence has become less acceptable and more exposed to criticism by psychologist but no two psychologists agree on a single definition of the term. Intelligence is often confused with learning, thinking, problem solving, concept formation, attainment and achievement. It is none of these but affects them all in a positive way, i.e., it improves performance. Ryle argues that intelligence is a ‘dispositional word’ and not an attribute. It is preferable to say that a person may be disposed to behave or perform intelligently rather than boldly state he is intelligent. There are two extremes between which ‘intelligence’ has been conceptualized the open view and narrow operational view. The open view is related with the popular or common sense concept whereas the operational view allows for a scientific precision and loss of some of the rich and polymorphous aspect. D. W. Wechsler says: “Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment”.

Individual Differences in Intelligence: Wide individual differences exist among individual with regard to intelligence. Truly speaking, no two individuals, even identical twins or individuals natured in identical environments, are enclosed with equal mental energy. The assessment of intelligence by various tests has given reason enough to believe that not only does intelligence vary from individual to individual but it also tends to vary in the same undivided from age to age and situation to situation.

Interest and Aptitude

The observable fact that people differ from one another and within themselves in their performance in one or other field of human activity such as leadership, music, art, mechanical work, teaching etc. Therefore in a simple way aptitude may be considered a special ability or specific capacity besides the general intellectual ability which helps an individual to acquire a required degree of proficiency or achievement in a special field.

- “Aptitude refers to those qualities characterizing person’s way of behaviour which serve to indicate how well he can learn to meet and solve certain specified kinds of problems” – Bingham.
- “An aptitude is a combination of characteristics indicative of an individual capacity to acquire (with training) some specific knowledge, skill, or set of organized responses, such as the ability to speak a language, to become a musician, to do mechanical work” – Freeman.

Interest is a feeling of happiness or satisfaction is an inward sign of interest. Interest lead to effort and as stimulant for effort, interest is an important aspect in the process of Education. Writers have defined interests as of pre-occupation, objectives, likes and dislikes and motives. According to them the verbal expression of interests is an activity or occupation is *expressed interest*. Interest as evidenced by participation in an activity or profession is *manifested interest*. Interest as measured by objective tests or other information is *tested interest* and in those which are measured by lists of activities or occupation to which the students responds by an expression of liking or preference is termed a *inventory interest*. *Vocational Interest* is depend upon knowledge, attitude, values, physical characteristics and environmental influences.

Interest and the Curriculum: A teacher should know the interests of each pupil early in the school year. Instruction should begin at the point of interest of the child, and this

cannot be accomplished unless these interests are known. The curriculum should be prepared according to the needs of children. How to make children interested in a particular learning activity? The important factors in learning/teaching process are the,

- Learners
- Learning Material
- Learning environment
- Method of teaching
- Teacher
- Fatigue etc

Aptitude

Aptitude is a condition, a quality or a set of qualities in an individual which is indicative of the probable extent to which he will be able to acquire under suitable training, some knowledge, skills or composite of knowledge, understanding and skill, such as ability to contribute to art or music, much crucial ability, mathematical ability or ability to read and speak a foreign language. How Aptitude Differs from Ability and Achievement?

- Aptitude has a future reference.
- Aptitude tries to predict the degree of attainment in an area of activity.
- Ability concerns only the present condition.
- Achievement is part oriented.
- Achievement reflects on past and indicates what an individual has learned in a particular field.
- Aptitudes are innate ability but abilities and achievements are acquired

Creativity

Creativity is the forming of associative element in to new combinations which either meet new specific requirements or are in some ways useful. The more mutually remote elements of the new combinations, the more creative the process of solution. Creativity is the ability to produce novel and socially valued ideas and solutions is a distinct talent that requires divergent rather than convergent thinking. It is the ability to find out new relationship and to innovate. Creativity is the capacity or ability of an individual to create discover or produce a new or novel idea or object, including the rearrangement or reshaping of what is already known to him which proves to be a unique experience.

A great deal of attention has been devoted to creativity in the past several decades particularly following the work of J.P. Guilford. However, the question remains unsolved that what is exactly meant by creativity? Let us glance into certain definitions.

- “Creativity is an activity resulting in new products of a definite social value”- Zbignition Pietrzinki.
- “Creativity is the forming of associative element in to new combinations which either meet new specific requirements or are in some ways useful. The more mutually remote elements of the new combinations, the more creative the process of solution”- Mednick.

Personality

In educational world the term ‘personality’ has a wide significance. Education is considered with an all-round development of the personality of a child, therefore, it is quit essential for a educator or pupil teacher to know about the term personality. Personality is a term that has many general meanings. Sometimes the word refers to the ability to get along well socially. For example, we speak of experiences or relationships, which are said to give a person “more personality.” The term may also refer to the most striking impression that an individual makes on other people. We may say, ‘she has a

shy personality'. To a psychologist, personality is an area of study that deals with complex human behaviour, including emotions, actions, and cognitive (thought) processes. Psychologists study the patterns of behaviour that make individuals different from one another.

Values

It is widely agreed that the primary function of education of concerned with values. Education transmits cultural and social values to the children. Along with that education helps children to cultivate values. Social living is intertwined with moral evaluations and values. Moral values are moral exhibitions that are acceptable, cherished, appreciated and appraised by the members of any given society. These values include values like love, sharing, honesty, patriotism, loyalty, truthfulness and so forth. These values help the members of any given society to live in a peaceful way. It also helps the existing resources to be distributed equitably and fairly. This brings about progress, growth and development in a society and country. In any country there are vices within the society that are against the moral values. These vices include corruption, armed robbery, stealing, raping, cultism, examination malpractices, rioting, assassination, touting and so forth.

CONCLUSION

The relation between psychology and education is very intimate. Psychology has been defined as the science of behaviour. It seeks to understand and explain behaviour in terms of mental and bodily activities. Its chief problem is how and why we behave, how we Think, know, feel and act and why we think, know, feel and act in the way in which we do. It tries to understand the conditions from which acts of behaviour arise and to arrive at general principles which govern behaviour so as to interpret, control and predict it. Education, as we have seen above, is an attempt to mould and shape behaviour. It tries to help young people to grow and develop along certain lines, to

acquire knowledge and skill and to learn certain ways of thought and feeling so that they may be absorbed in adult social life.

MODEL QUESTIONS

1. Give an acceptable definition of psychology. Explain the major terms in the definition
2. "Without knowledge of Educational Psychology cannot be a good teacher." Comment on the statement.
3. Define Educational Psychology.
4. What are the functions of educational psychology? How it is beneficial for prospective teachers?
5. Discuss the relationship between Education and Psychology.
6. Appreciate the value of educational psychology for a teacher.
7. Highlight the importance of educational psychology in teaching learning process.
8. Appreciate the role of psychology as an important domain of education.

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