

MODULE- I

ROLE AND APPLICATION OF PSYCHOLOGY IN EDUCATION

1

PSYCHOLOGY AND EDUCATION

Unit Structure:

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Concept of Psychology and Educational Psychology.
- 1.3 Contribution of Educational Psychology to the teaching process
- 1.4 Scope of Educational Psychology
- 1.5 Contribution of various Schools of Psychology
- 1.6 Let us Sum up

1.0 OBJECTIVES :

After reading this unit, you will be able to

- Define Psychology and Educational Psychology.
- State the key features of Behavioristic School of Psychology.
- State the key features of Humanistic School of Psychology.
- State the key features of Psychodynamic School of Psychology
- State the key features of Cognitive School of Psychology
- State the key features of Neurobiological School of Psychology
- Explain the Scope and contribution of Educational Psychology to the Teaching process.

1.1 INTRODUCTION :

The earliest origin of Psychology is in the writings of the ancient Greek philosophers about the nature of life, particularly to writings of Aristotle. Aristotle was born in 384 B.C., was interested in learning everything he could about the nature of life itself. Aristotle used the term 'psyche' to refer to the essence of life. This

term is translated from Greek to mean “mind”. Indeed, the term Psychology comes from Aristotle’s word ‘psyche’ plus the Greek word ‘logos’, which means “the study of”. Thus, Aristotle was the first one launched the study of life that evolved later into the modern Science Psychology.

1.2 CONCEPT OF PSYCHOLOGY AND EDUCATIONAL PSYCHOLOGY :

Definition of Psychology:

Psychology is defined as the science of behavior and mental processes. This definition contains key terms – Science, Behavior and Mental processes. Psychology is considered to be a science because psychologists attempt to understand people through careful, controlled observation. The term behaviour refers to a person’s overt actions that others can directly observe. The term mental processes refer to the private thoughts, emotions, feelings and motives that others cannot directly observe i.e. the covert behavior. So today, Psychology is defined as the Science of behaviour and cognitive processes.

What is Educational Psychology?

Educational Psychology is one of the many branches of Psychology dealing mainly with the problems, process and products of education. It is an attempt to apply the knowledge of Psychology in the field of education. Educational Psychology may be defined as that branch of Psychology which studies the behaviour of the learner in relation to his educational needs and his environment. Skinner defines Educational Psychology as that branch of Psychology which deals with teaching and learning.

1.3 CONTRIBUTION OF EDUCATIONAL PSYCHOLOGY TO THE TEACHING PROCESS :

Education aims at shaping the behaviour of the students in a desirable way and bringing about all-round development in their personality. This task is carried out through the process of formal and informal teaching and learning. Educational Psychology helps in the process of teaching and learning by adopting the scientific principle. Educational Psychology helps a teacher in the following way:

- A teacher can teach effectively by making minimum use of his energy in terms of time and labor.
- The students can learn effectively by spending less of their time and effort.
- Helps to carry out the processes and produce the results of education.
- It supplies the necessary knowledge and skills, especially for the teacher to realize the objectives of education.
- It equips the teacher with essential scientific skills, technological expertise and advice in moulding and shaping the behaviour of the students.

Educational Psychology thus plays the same role as other sciences and technology in helping the teachers and other persons connected with the building of the future of the youngsters in their charge. Thus, Educational Psychology can be described as the science and technology of Education.

1.4 SCOPE OF EDUCATIONAL PSYCHOLOGY :

In Psychology the scope of study and the fields of operation are extended to cover the behaviour of all living organisms related to all their life activities, whereas, in Educational Psychology, the scope of such behavioural study has to be limited within the confines of the teaching-learning process, i.e. studying the behaviour of the learner in relation to their educational environmental, specifically for the satisfaction of their educational needs and the all round development of their personality. Therefore, the subject matter of Educational Psychology must be centered on the process of teaching and learning for enabling the teacher and learners to do their jobs as satisfactorily as possible. The educative process includes the following areas of education of the learner:

1. Teacher:

Teacher's role is very crucial in the task of behavioral modification and personality development of number of children studying in a class. Much depends on the competency and capability of the teacher for carrying out the desired task. For this purpose, the teacher must pay attention to the following aspects which have been included in the text of educational Psychology:

- Personality traits and characteristics of good teachers.
- Duties and responsibilities of a teacher.

- Measures for knowing and doing away with personal conflicts, anxiety and tension.
- Teacher's motivation, level of aspiration, adjustment and mental health.

2. Learner:

Before the learner is taught, his individuality and personality should be known. Therefore, topics like the following should be included which will be helpful in exploring the individual's life, viz;

- Learner's instincts and other innate abilities.
- The learned and acquired abilities.
- Individual differences in terms of abilities and capacities.
- Their interests, aptitudes, attitudes, intelligence and creativity.
- Mental health and personality.

All these are important for personality appraisal.

3. Learning process:

The subject matter of educational Psychology thus covers the topics helpful in suggesting principles, methods and techniques for the selection of the learning experiences appropriate to each development stage of the children. It enunciates how to organize the contents or topics grade-wise for giving them the shape of a syllabus or curriculum; even how to cater to the individual differences and individuality of the children in framing the syllabi or curricula is also taken care by educational Psychology. The subject tries to encompass the essential knowledge and skills for equipping the teachers to plan, select and arrange learning experiences to the children suitable for their age, grade and also meeting their specific individual potentialities. It must include the topics and contents which are specifically meant for improving the processes and products of education mainly centered on the teaching- learning process. As a result its study involves the following topics:

- Psychology of learning
- Motivation of learning
- Factors affecting learning
- Transfer of learning / training
- Sensation, perception and concept formation.
- Interest and attitude formation
- Thinking, reasoning and problem solving behavior etc.

4. Learning Environment:

Educational Psychology helps the teacher and the learners to understand the suitability and appropriateness of a teaching - learning situation for the effective realization of the teaching - learning objectives. Educational Psychology plays its role in deciding the type of learning experiences suitable for the children at each developmental stage by keeping in view the differences in their potentialities. Every environmental situation is not suitable for a particular piece of instruction or the sharing of a learning experience. The effectiveness of a teaching - learning programme depends largely on the suitability of the teaching - learning situations in terms of time, place and other environmental factors. Educational Psychology helps in taking into account the following :

- Classroom climate
- Institutional/ Organizational climate
- Group behaviour and group dynamics
- Role of rewards and punishment
- Guidance and Counseling

5. Learning Resources:

Although Educational Psychology does not connect itself directly with the problem of what to teach or what learning experiences or resources are to be provided for the learner yet it has the full responsibility of suggesting techniques of acquiring the learning resources. Once the task of Educational Philosophy to decide the aims and objectives of a piece of instruction at a particular stage is finished, the need of educational Psychology is felt. At this stage, Educational Psychology helps in deciding what learning resources are desirable at what stage of the growth and development of the learner so that these experiences can be acquired with a greater ease and satisfaction. In this area Educational Psychology has the subject matter which deals with the knowledge and principles of Psychology which facilitates the selection of the desirable learning resources for the learner. Educational Psychology helps in taking into account in organizing the following:

- Print media - books, newspapers, magazines
- Audio - Visual- television, films
- Multimedia – Computers (online & off line)
- Museum, Visits, Exhibitions, etc.

Educational Psychology is a continuously growing discipline adding new dimensions to its field of study. However, its scope may be considered extensive in the sense that all that is needed for

providing solutions to the problems and demands of the dynamic educational system must find place in the study of educational Psychology.

Check your progress:

1) Discuss the scope of educational Psychology.

1.5 CONTRIBUTION OF VARIOUS SCHOOLS OF PSYCHOLOGY :

(a) Behavioristic School of Psychology

Behaviorism as a method of studying behaviour focused its attention totally on the overt or observable behavior. The theory of behaviorism as propagated by Watson was in fact based on the finding of the Russian psychologist Ivan Pavlov (1849-1936), the propagator of the theory of Classical Conditioning. Behaviorism tried to project human beings as little more than rather complex machines which respond in a particular fashion to a particular kind of stimulus. The behaviour of an individual may thus be supported to be controlled by environmental forces, and not by hereditary inducements or innate differences. His strong convictions about the stimulus response automatization and environmental influences made Watson assert boldly in 1926:

“Give me a dozen healthy infants, well informed and my own special world to bring them up in and I will guarantee to take anyone at random and train him to become any type of specialist I might select – Doctor, lawyer, artist.....” (Watson 1924).

The doctrine of behaviorism propounded by Watson and his disciples, thus, ushered a new era in the field of Psychology by making it somewhat materialistic, hedonistic, and objective like most of the physical and natural Science subjected to criticism and has been modified and refined by contemporary Psychology.

Behavioristic approach is the analysis of how learning occurs based upon rewards and punishment. It studies the objective, observable environmental influences on behavior and treating people with overt problems (observable behavioral problems).

Criticism

- ✓ Watson advocated Science of Psychology that included only overt behavior and made attempt to study mental processes.
- ✓ It gives lot of importance to environment and neglects biological factors in behavior.
- ✓ Behaviorism tried to project human beings as little more than rather complex machines.

Contribution to Education

- ✓ Behaviorism revolutionized all the programs and methods related to Education.
- ✓ Behaviorism advocates the use of reinforcement and rewards (in the place of punishment and unpleasant behavior) as inducement for the acquisition of desirable behavior and for giving up the undesirable behavior.
- ✓ It highlighted the role of motivation and environment in shaping and modifying the behavior of children.
- ✓ Behaviorism gave rise to new ideas and innovations in the field of learning and instruction like programmed learning involving teaching individualized self instructional programmes involving teaching machines and Computer Assisted Instruction (CAI).

Check your progress:

- 1) “Psychologists should worry only about behaviour that is directly observable.” Discuss the psychological perspective suggested in this statement.

(b) Psychodynamic School of Psychology

Psychodynamic approach is based on the idea that mental disorders stem primarily from the kind of hidden inner conflicts first described by Freud – for instance, conflicts between our primitive sexual and aggressive urges (id impulses) and the ego. More specifically, psychodynamic therapies assume that mental disorders occur because something has gone seriously wrong in the balance between these inner forces, several forms of therapy are based on these assumptions, but the most famous is psychoanalysis, the approach developed by Freud. Freud claimed that the mind is made up of three parts: the conscious, the preconscious and the unconscious. It is the unconscious mind, which determines most of our behavior. He also showed that personality is made up of three parts – the id, the ego and the super ego.

- The Id is the primitive, uncivilized impulses demanding pleasures at all costs.
- The Ego is rational, realistic and consciously cultivated by an individual.
- The Super Ego represents the moral frame of reference and transforms the Id to suit the culture and convention prevalent in society. It is the super ego that places constraints on behavior, and uses the feelings of pride and guilt to achieve compliance.

Psychosexual Stages of Development: Freud held the view that every transition in all the stages from infancy to adult results in specific modes of need-gratification. One has to be constantly changing and modifying the ways of satisfying desires otherwise stagnation or regression may occur.

According to Freud, psychological development takes place in a series of fixed psychosexual stages. The stages are:

- ❖ Oral (0-18 months)
- ❖ Anal (18-36 months)
- ❖ Phallic (3-6 years)
- ❖ Latent (6 years – puberty)
- ❖ Genital (puberty onwards)

Freud gave the following important concepts :

Repression: is a process of pushing the unwelcome thoughts to the deeper region of the unconscious. The repressed thoughts form a cluster to become complexes and erupt upon the surface.

Catharsis: A catharsis is an emotional release. According to psychodynamic theory, this emotional release is linked to a need to release unconscious conflicts.

Libido: Freud uses the term Libido to represent the energy of instincts.

Sublimation: It is a process of channeling aggressive impulses toward socially acceptable and culturally valued activities.

Electra complex: refers to the attraction of daughter to father.

Oedipus complex: refers to the attraction of son to mother.

Freud also analyzed dreams to interpret the thought processes of individuals. According to him dream is a kind of wish-fulfillment to gratify those desires that cannot be done in real life.

Psychodynamic approach is based on the belief that childhood experiences greatly influence the development of later personality traits and psychological problems. It focuses on conflicts between what people believe to be acceptable behavior and their unacceptable motives (sex and aggression). These motives are what lead to behavior and are hidden in the unconscious, outside of our awareness.

Criticism

- It has been suggested (Jones and Elock, 2001) that psychoanalysis has had a limited impact on scientific Psychology. This is because psychoanalysis is widely seen as unscientific. In addition, Freud's research is seen as being methodologically poor, being based on a small number of individual cases.
- It treats mankind to be selfish, pleasure seeking and animal-like rather than social and humane. This is not the only thing. Man is also a social being and can make sacrifices and live for others.
- It overemphasizes the role of sex in human life. Freud reduces human behavior to the function of a single unitary motive, i.e. the sex motive. The complex human behavior cannot be interpreted in such a generalized unitary fashion. There are so many motives

or urges that play important role in determining human behavior at a particular time in a particular situation.

- It attaches too much importance to the role of unconscious as a determinant of behavior. According to Freud, unconscious mind is responsible for giving birth to many conflicts, tensions and mental illness. This cannot be always true. The unconscious can play constructive role in life in terms of creation, sacrifice and striving for the higher ideals.
- Freud overemphasized the role of early childhood experiences for setting out the course of one's life as well as one's overall personality. However, this is not true as later life experiences in adulthood also play vital role in shaping the personality.

Contribution to Education

- ✓ Freud gave an impetus to the movement of early childhood education, incorporating the giving of maximum freedom to children for expression of their biological urges and minimum interference in the course of their natural growth and development.
- ✓ The discovery of the unconscious and its importance in determining behavior has helped in determining the causes of behavioral deviations. In education, this has helped in understanding the children, and the taking of all possible precautionary measures for preventing their becoming mal-adjusted personalities.
- ✓ Freud's system of psychoanalysis has called for the provision of proper extra-curricular activities and suitable hobbies etc in the school programmes for the release of repressed or blocked libidinal energy and pent-up feelings.
- ✓ Freud's emphasis on the role of sex in one's life has brought out the necessity of providing proper sex education to children.

Check your progress:

- 1) Explain how psychoanalytic approach can be used in explaining the abnormal behaviour of an individual.

(c) Humanistic School of Psychology

Humanistic Psychology was developed in the 1950s in reaction to both Behaviorism and psychoanalysis. By using phenomenology, inter-subjectivity and first-person categories, the humanistic approach sought to glimpse the whole person—not just the fragmented parts of the personality or cognitive functioning. Some of the founders of this school of thought were American psychologists Abraham Maslow, who formulated a hierarchy of human needs, and Carl Rogers, who created and developed client-centered therapy; and German-American psychiatrist Fritz Perls, who co-founded Gestalt therapy.

Key Features

- ❖ It is explicitly concerned with the human dimension of Psychology and the human context for the development of psychological theory. This is part of the field's "human science" approach to Psychology and involves an emphasis on the actual experience of persons.
- ❖ The theorists focused on the depth of the human psyche, which, they stressed, must be combined with those of the conscious mind in order to produce a healthy human personality.
- ❖ Humanism focused on fundamentally and uniquely human issues, such as self-identity, death, aloneness, freedom, and meaning.
- ❖ The Humanistic approach was distinguished by its emphasis on subjective meaning, rejection of determinism, and concern for positive growth rather than pathology.
- ❖ Humanistic Psychology focused on uniquely human issues, such as the self, self-actualization, health, hope, love, creativity, nature, being, becoming, individuality, and meaning—that is, the understanding of "the personal nature of the human experience".

Humanistic approach emphasizes on individual freedom in directing one's future. This approach developed in part as a result of Maslow's dissatisfaction with psychoanalysis and behaviorism. According to this approach all individuals strive to grow, develop and move toward self-actualization. It stresses on free-will, self-actualization and that human nature is naturally positive and growth seeking.

Criticism

- Often seen as too subjective; the importance of individual experience makes it difficult to objectively study and measure humanistic phenomena.
- Observations are unverifiable—there is no accurate way to measure or quantify these qualities.

Contribution to Education

- ✓ Humanistic Psychology includes several approaches to counseling and therapy.
- ✓ Humanistic Psychology theory of Abraham Maslow, emphasizing a hierarchy of needs and motivations.
- ✓ Humanistic Psychology is centered on the student's capacity for self-direction and understanding of their own development.
- ✓ Self-help is also included in humanistic Psychology.
- ✓ Humanistic Psychology tends to look beyond the medical model of Psychology in order to open up a non-pathological view of the person.
- ✓ Humanistic Psychology offers a new set of values for approaching an understanding of human nature and the human condition.
- ✓ Humanistic Psychology offers an expanded horizon of methods of inquiry in the study of human behavior.
- ✓ It offers a broader range of more effective methods in the professional practice of psychotherapy.
- ✓ Emphasizes the role of the individual; humanistic Psychology gives more credit to the individual in controlling and determining their state of mental health.
- ✓ Takes environmental influence into account; rather than focusing solely on our internal thoughts and desires, Humanistic Psychology also credits the environment's influence on our experiences.
- ✓ Humanistic Psychology continues to influence therapy, education, healthcare, and other areas.
- ✓ Humanistic Psychology helped remove some of the stigma attached to therapy, and made it more acceptable for normal, healthy individuals to explore their abilities and potential through therapy.

Check your progress:

- 1) “Humanistic Psychology emerged as a protest against both Behaviorism and Psychoanalysis.” Comment.

(d) Cognitive School of Psychology

Cognitive Psychology is one of the more recent additions to psychological research, having only developed as a separate area within the discipline since the late 1950s and early 1960s. It had its foundations in the work of Wilhelm Wundt, Gestalt Psychology of Max Wertheimer, Wolfgang Köhler, and Kurt Koffka, and in the work of Jean Piaget, who provided a theory of stages/phases that describe children's cognitive development. Ulric Neisser coined the term 'cognitive Psychology' and defined it as characterizing people as dynamic information-processing systems whose mental operations might be described in computational terms. Cognitive Psychology has its roots in the cognitive outlook of the Gestaltists. The names of psychologists Tolman and Piaget are also associated with the propagation of the ideas of this school of thought.

Cognitive Psychology mainly studies man's thinking, memory. Language, development, perception, imagery and other mental processes in order to peep into the higher human mental functions like insight, creativity and problem solving. Cognitive psychologists are totally opposed to the stimulus-response approach of the behaviorists.

Key Features

- ❖ Cognitive Psychology is a discipline within Psychology that investigates the internal mental processes of thought such as visual processing, memory, problem solving, and language.
- ❖ The school of thought arising from this approach is known as cognitivism which is interested in how people mentally represent information processing.
- ❖ It highlights the role of man's higher cognitive abilities and capacities to adapt to his environment and lays stress on studying

the cognitive development and functioning of a man through his behaviour.

- ❖ The cognitive approach attempts to understand the nature of human thought and intelligence.
- ❖ The term "cognition" refers to all processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used.
- ❖ Cognitive Psychology presents the system's viewpoint to explain the behavioural mechanism. In this system, whatever is conveyed through stimuli in the environment is the 'input'. The cognitive functioning of the human mind is the 'process' and the result of the cognitive functioning is the 'output' or the 'product'.
- ❖ It is concerned with these processes even when they operate in the absence of relevant stimulation, as in images and hallucinations.

Cognitive Psychology is radically different from previous psychological approaches in two key ways:

- It accepts the use of the scientific method, and generally rejects introspection as a valid method of investigation, unlike symbol-driven approaches such as Freudian Psychology.
- It explicitly acknowledges the existence of internal mental states (such as belief, desire and motivation) unlike Behaviorist Psychology.

Cognitive Psychology studies cognition, the mental processes underlying mental activity, perception, learning, problem solving, reasoning, thinking, memory, attention, language and emotions. As the cognitive approach in Psychology is a relatively modern approach to human behaviour, the focus therefore is on how we think; with the belief that such thought processes affect the way in which we behave (other approaches take other factors into account, such as the biological approach, which acknowledges the influences of genetics and chemical imbalances on our behaviour).

Cognitive approach focuses on how we process, store and use information. It emphasizes on perception, memory, imagery, concept formation, problem solving, reasoning, decision making and language. It focuses on information processing approach, gathering information, processing it and producing a response.

Criticism

One of the difficulties related to cognitivism has to do with the many different ways in which cognitive Psychology (or cognitivism) is discussed.

Contribution to Education

Because cognitive Psychology touches on many other disciplines, people in a number of different fields often study this branch of Psychology. The following are just a few benefits from studying Cognitive Psychology:

- ✓ The core focus of Cognitive Psychology is on how people acquire, process, and store information.
- ✓ There are numerous practical applications of cognitive Psychology, such as ways to improve memory, how to increase decision-making accuracy, and how to structure educational curriculums to enhance learning.
- ✓ It is beneficial to students interested in behavioral neuroscience, linguistics, industrial-organizational Psychology, artificial intelligence and other related areas.
- ✓ Teachers, educators and curriculum designers can be benefited by learning more about how people process, learn, and remember information through cognitive Psychology.
- ✓ With the work of Jean Piaget and other influential cognitive psychologists, educators and psychologists have gained deeper insight into student learning and the ways in which the testing of misperceptions help young people refine their thinking and eventually arrive at more objective truth. Under behaviorism the appropriate response to mistakes and un-truths was to use extinction to get rid of the wrong behavior. In Cognitive Psychology those mistakes can be by themselves important steps to gaining a deeper and more accurate understanding of life. This has a great impact on the ways in which educators approach teaching, and helps teachers to redefine the objectives of classroom activity and important ways.
- ✓ Engineers, scientists, artists, architects and designers can all benefit from understanding internal mental states and processes.

Check your progress:

- 1) Critically examine the Cognitive Approach and its contribution to education.

(e) Neurobiological School of Psychology

Neurobiological approach is basically a sub-branch of biological perspective towards Psychology. Psychologists have long been interested in the relationship between our psychological nature and our biological nature, particularly our brains. Spanish scientist Cajal first identified neurons- the cells that make up the brain and nervous system – in the early 1900s. His view that the brain was made up of a network of interacting neural cells laid the foundation for our modern understanding of the role of the brain in Psychology. Thus the areas of emotional and motor memory, vision and higher mental processes are the examples of this new understanding. Progress in all of these areas has been swift and impressive, but much needs to be done to reveal the mechanism of the cognition at the local circuit and molecular levels. This work will require new methods to control gene expression in higher animals and in studying the interactions between neurons at multiple levels.

Psychologists who approach the science from a biological perspective are interested in the areas of the brain that play roles in emotion, reasoning, speaking and other psychological processes. In human beings, feelings triggered by the neuro-chemicals are displayed as emotion cues. E.g. the human emotion of love is proposed to have evolved from the neuro-chemicals (paleocircuits) which facilitate the care, feeding and grooming of offspring. The English word ‘emotion’ is derived from the French word *emouvoir*. This is based on Latin *emovere*, where *e-* means ‘out’ and *movere* means ‘move’. The related term “motivation” is also derived from *movere*. An emotion is a mental and physiological state associated with a wide variety of feelings, thoughts and behaviour. Emotions are subjective experiences, often associated with mood, temperament, personality and disposition. Based on the discoveries made through neural mapping of the limbic system, the neurobiological explanation of human emotion is that emotion is a

pleasant or unpleasant mental state organized in the limbic system. Emotions occur due to neuro-chemicals which step- up or step – down the brains activity level as visible in body movement, gestures and postures.

Key Features

- ✚ The Neurobiological Approach in Psychology is defined as viewing behaviour as the result of nervous system functions and biology.
- ✚ It is a more scientific way of looking at Psychology.
- ✚ It is the study of the relationship between human behavior and the nervous system.
- ✚ The Neurobiological Approach which seeks to specify the neural and endocrine events that underlie behaviour and mental processes.
- ✚ The Neurobiological Approach focuses on how the body reacts to the environment, the obvious physical changes and processes the body creates under specific conditions.
- ✚ Thus, their understanding of personality disorders and anti-social behaviour would be that there is something wrong with the physical part of the brain, perhaps a chemical imbalance or nerves that are not firing correctly.
- ✚ Neurobiological psychologists would treat these disorders with medication.

Neurobiological Approach emphasizes is on sensation, perception, learning, memory, language, sexuality and abnormal behavior. It focuses on genetics and biological processes in the brain and other parts of the nervous system.

It studies the structure and function of nerve cells, the brain and the nervous system and how this contributes to behavior.

Criticism

The field of neuro-Psychology, which studies the brain and the connected nervous system, has been an outgrowth of this contemporary focus on biological explanations of human thought and behavior. The disadvantage to this perspective is that it does

NOT explain Psychology thoroughly. Each individual's emotions and thinking processes involve more than "brain waves" or "chemical triggers in the blood," such as the reality of external environmental events that trigger the anger in the first place.

Contribution to Education

- ✓ This is a scientific approach to learning that relates behavior to the electrical and chemical events taking place inside the body.
- ✓ It emphasizes the need to understand activities within the brain and nervous system. Together their effect upon behavioral and mental processes.
- ✓ Cotton (1995) argues that this approach is very helpful for understanding learning. In particular, it emphasizes the need to be aware of the sensitivity of, for example, the ears, eyes and noses.
- ✓ It also enables the teacher/lecturer to decide on how to attract and maintain attention, since it provides an understanding of how the brain functions – including channels of communication and processing of information.
- ✓ Useful knowledge about information processing which is central to other approaches to learning (e.g. the cognitive approach) is based on physiological data.
- ✓ Additionally, most of the advances in the scientific understanding of memory, brain processes and resulting behavior are also of direct use to other approaches to learning.

Check your progress:

- 1) Explain how the study of Neurobiological Approach contributes in studying the behaviour of the learner.

1.6 LET US SUM UP

- ✓ **Behaviouristic approach** was founded in the last 19th Century hitting its peak in the 1920's through the 1950's. Important contributors include Ivan Pavlov (1905), John Watson (1920's),

and B.F. Skinner (1950's). It is based on the idea that all behaviour is learned and that humans are a product of the learning environment.

- ✓ **Psychodynamic approach** is the first modern school of Psychology to emerge and it emphasized the importance of unconscious forces in the behaviour of humans. Important contributors include Sigmund Freud. Psychoanalysis is a deterministic model and has significant problems with regard to observation and whether or not the theory can be tested, i.e., “Is the theory falsifiable?” Freud has had a profound influence on the entire field of Psychology, sociology, criminal justice, and modern life in general!
- ✓ **Humanistic approach** to Psychology is a very broad field that encompasses many psychological theories. Important contributors include Carl Rogers and Abraham Maslow. They all, however, emphasize the importance of free will and the human condition. One major contribution is the development of psychological techniques. These theories are in stark contrast to both behaviourism and psychoanalysis.
- ✓ **Cognitive approach** of Psychology emphasizes the importance of mental activities, symbolic processing, learning, memory, thinking, and perception in normal and abnormal states. Important contributors include Ulric Neisser, Max Wertheimer, Wolfgang Köhler, and Kurt Koffka, Jean Piaget, Albert Ellis, Albert Bandura, Robert Sternberg and Howard Gardner.
- ✓ **Neurobiological approach** is the most recent school of Psychology and suggests that all behaviour is rooted, in some way, to the functioning of the nervous system. Important contributors include Johannes Muller, Karl Lashley, David Hubel, James Olds, Roger Sperry and Candice Pert (1st female). If we understand the nervous system then we can understand how all behaviour emerges! This field is growing so quickly that it is difficult to keep up with the literature. Neurobiological approach appears to be replacing traditional Psychology programs.

Check Your Progress :

1. Describe the salient features of the different schools of Psychology.

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