**MODULE I**

**PSYCHOLOGY, EDUCATION AND EMERGING LEARNER**

* 1. **PSYCHOLOGY**

The word Psychology comes from two Greek words, Psyche-soul, Logos-science, thus the meaning of Psychology is the Science of the soul. The failure on the part of the Psychologists to define the real nature of the soul, led them to give up this definition and define psychology as the ‘Science of the mind’. The nature of the mind was interpreted in different ways by different psychologists and this led to confusion and hence this definition was also given up. Some psychologists defined psychology as the “Science of consciousness”. Since this definition took into consideration only the conscious part and omitted the other equally important unconscious part, this definition was also discarded. Lastly psychology is defined as the science of behaviour - conscious or unconscious. The word “behaviour” includes all the activities of the individual physical, mental etc.

**Definitions**

Kolensnik:- Psychology is the science of behaviour

Woodworth:- science of activities of the individual in relation to the environment.

Watson:- positive science of behaviour.

Skinner:- science of behaviour and experiment.

Crow and Crow:- study of human behaviour and human relationship

Bridges:- science of consciousness and behaviour and unconscious determinants of behaviour

**The Nature of Psychology**

The nature of psychology is quite scientific.

1. The psychology possesses a well organized theory which is supported by psychological laws and principles.

2. It emphasizes search for truth by advocating objectivity, reliability and validity in the assessment of behaviour.

3. The methods and techniques used in the study of behaviour in psychology are quite scientific.

4. It believes that every behaviour has its roots and factors causing, influencing or nurturing it.

5. The results of the study of behaviour are always open to verification under similar conditions by other experiments and observers. These results may be accepted, modified, or altered in the light of the latest data and findings.

6. The established facts, principles and laws of behaviour in psychology enjoy universal applicability in practical life, in other bodies of knowledge and future researches in its own sphere.

7. An appropriate description and quantification of behaviour is possible through psychology.

8. It has its applied aspects in the form of various branches of applied psychology like, industrial, legal, clinical and educational psychology. Due to these characteristics psychology is a science. It’s nature is scientific not philosophical.

**Important Functions of Psychology**

* 1. To understand human behaviour
	2. To identify factors that influence behaviour
	3. To understand individual differences
	4. To understand the cause and cures of abnormal behaviour
	5. To treat mental illness

6. To understand consumer taste

7. To increase productivity and effectiveness in work

8. To find out individuals suitable (selection, training, promotion and classification) for each job

9. To provide effective education

10. To understand self and others

11. To give guidance and counselling

12. To prepare individuals to be effective in different fields like politics, business, military, social work etc:

* 1. **SCHOOLS OF PSYCHOLOGY**

It represents a system of thinking. A group of psychologists having similar points of views and making similar approaches to study human behaviour or mind consist a school of thought in psychology. A study of human behaviour has to integrate several disciplines such as philosophy, physiology, sociology, and anthropology.as specialists in each of these areas gather to describe human behaviour they carry with them some of the perspectives of their own disciplines. The important schools of psychology are: 1) Structuralism 2) Functionalism 3) Behaviourism 4) Psychoanalysis 5) Gestalt school of psychology.

1. **STRUCTURALISM**

The first school or system of psychology is known as structural school of psychology which vigorously worked establish psychology as an independent science. The origin of this school of thought dates back to the important landmark in the history of psychology.

Structuralism was the dominant school of psychology in Germany and the U.S. between 1890-1920.It was in the year 1879 a German Psychologist, Wilhem Wundt established the first Psychological Laboratory in Leipzig. According to him all our behaviour originates as simple feelings and sensations. These are the elements that constitute the basis of our actions. In laboratory the subjects report their sensations or feelings during the time of experiment.

These psychologists believed the chief purpose of psychology was to describe, analyze, and explain conscious experience particularly feelings and sensations. They attempted to give a scientific analysis of conscious experiences by breaking it down in to its specific components or structures.

This school mainly deals with the structural aspects of mind. The elements of conscientiousness are sensation, feelings and images. Structuralism defines mind as the sum total of various mental experiences of the individual and consciousness as the sum total of the mental experiences at some particular moment. The introspection method, the scientific methods and the emphasis on experimentation are the main features of structural school of psychology. In introspection subjects were trained to observe and report as accurately as they could their mental processes, feelings and experiences.

According to this school conscious process of children , animals and mentaly disturbed individuals cannot become the subject matter of psychology because the method of introspection could not be employed in these situations.

**Contribution to Education**

* Psychology become independent science
* It gave a careful experimental method of data collection
* It emerged out laboratory experiments
* The spirit of science and emphasis on experimentation was the contribution of the structuralism
* It laid emphasis on systematic observation of the activities of the mind

**Limitations of structuralism**

As a system of psychology structuralism is regarded as a very limited system which is unable to cover all aspects of human behaviour. The isolation of such important topic as motivation, individual differences and abnormal behaviour etc: clearly revels the limited scope of this system. According to this school function involves structures and structures of mind can be explained through its part not its process. The introspection method used by structuralists for studying behaviour is not considered as objective, reliable or valid.

1. **FUNCTIONALISM**

According to the functionalism the subject matter of psychology is mental process or the “functions” of the mind.it is utilitarian and concerned with commonsense issues. They say that mental function could study if correct methods are used. John Dewy, William James, James R. Angell, E.L.Thorndike, R.S.Woodworth are the important psychologists of this school. This school emphasis on functions of mind rather than structure of mind, and study the nature of individual wholly. Role of environment is important in the personality development of the individuals. Functionalists believe that the mind and body are intrinsically one, though they appear as distinct elements. The mental activities are the result of adjustments of an individual with the environment. It is concerned with the nature and functions of mental process with emphasis on how this process works.The Methods used by this school are physiological method, method of varied condition, and introspection.

The merits of this school are:

* Psychology become more scientific and more practical
* Gave emphasis on the functionability of the content of the curriculum
* The methods & Techniques for learning become student centered
* Widened the scope of psychology and educational psychology
* Questionnaire, inventory, tests etc: are started to use for measurement & evaluation
* Application of psychology in to the practical field

**Contribution to Education**

* It gives importance for the environment in the process of learning therefore the teachers should try their best to provide conducive environment to the learners so that their motivation in learning may sustain.
* Curriculum is revolutionized with practical approach
* Learning by doing was given central importance in school curriculum.
* It contributes a lot to Educational psychology, Mental testing, Child psychology
* It gives more importance to the needs of children at different age levels(child centered education)
* It give birth to the utilitarian theory of education.it emphasized the importance of the child in the process of learning. Only those subjects should be included in the curriculum which is important from the point of their utility in society.
* It developed the spirit of scientific enquiry.
* It developed new innovative method of teaching and learning.

**Limitations of Functionalism**

The following are the limitations of this school of psychology:

* The term “FUNCTIONS” was variously defined by different functionalists and they failed to define many important psychological concepts unanimously.
* The school focused only on conscious mind and avoided unconscious part of mind.
* They gave more emphasis on biological basis and neglected socio-cultural influences in the functioning of mind.
1. **BEHAVIOURISM**

J.B.Watson was the father of behaviourism which was quite contrary to structuralism and functionalism. He concluded that the whole idea of consciousness is absurd. Consciousness cannot be proved by any scientific test and he removed from psychology all intangible terms such as ‘mind’, ‘consciousness’, ‘soul’ etc: According to Watson psychology is a purely objective experimental branch of Natural Science. He gave up the use of introspection. Instead the words ‘Stimulus-Response’, Habit Formation, Habit Integration are inserted in to psychology. Behaviourism is a method of studying behaviour focused its attention totally on the observable behaviour. The Russian Psychologist Ivan Pavlov came up with the theory of classical conditioning. Behaviourism considers human beings as little more than rather complex machines which respond in a particular fashion to a particular kind of stimulus. They focused on what was actually being done by the people and observed by the investigator objectively. It replaced the introspection method with the scientific and objective measures. Behaviorists while giving second place to hereditary characteristics highlighted the role of environment in shaping and modifying behaviour of the individuals.

**Contributions to Education**

* Individualized self-instructional programmes, Programmed learning, Teaching machines, Computer Assisted Instructions are the contribution of behaviourism.
* It helped in revolutionizing all the programmes and methods related to education, training, and rehabilitation by emphasizing greater need to provide the best possible learning situations and
* Behaviourism advocated giving importance to reinforcements & rewards instead of punishments.
* The techniques of shaping behaviour and behaviour modification programmes are developed by behaviorists useful in dealing with backward and maladjusted children.
* Highlighted the role of motivation and purposes in learning and shaping behaviour.

**Limitations**

* Human behaviour is so complex that cannot be studied by breaking down into simple S-R connections as done by psychologists of this school.
* Behaviourism focused only on overt behaviour and neglected the covert behaviour.
* They give importance to environment in shaping human behavior and neglected the role of hereditary factors.
1. **SCHOOL OF PSYCHOANALYSIS**

Psychoanalysis as a system or school of psychology was the brainchild of Sigmund Freud (1856-1939). For the first time this system presented a beautiful blend of theory and practice. On the theoretical side it presented a theory to understand and explain the human psyche and on the practical side it provided a method known as psychoanalysis for the study of human behaviour and also as a therapy for treating the mentally ill. Adler, Jung, Hartmann, Erikson, Anna Freud etc: were some important psychologists of this school.

 According to this school the human mind has three parts as conscious, preconscious (subconscious) and unconscious. He compared the human mind in to an iceberg. The conscious mind lies just above the surface of the water like the tip of an iceberg and occupies one tenth of our total mental life or psyche. The ideas, thoughts and images that we are aware of at any moment of our life are said to lie within this upper layer of the mind. Just beneath the conscious level lies the subconscious mind. This portion of the mind stores all types of information just beneath the surface of awareness dormant or untapped which can be easily brought to the level of consciousness at a moment noticed whenever required. The unconscious mind lies at the bottom level and it is the most important part of our mind It is hidden and usually inaccessible to the conscious, but it is vast. According to Freud the unconscious mind is responsible for most of our behaviour not by the choice of our conscious mind.

**Theory of Personality Structure**

Freud believes that the personality structure is compared of has its own properties and mechanisms. They interact with one another closely and the human personality is the outcome of such an interaction **Id** is the raw savage and immoral basic stuff of one’s personality that is hidden in the deep layers of one’s unconscious mind. It is the source of mental energy and of all instinctive energy of the individual. The Id is quite selfish and unethical. It knows no reality, follows no rules and considers only the satisfaction of its own needs and drives. It consists of such ambitions, desires, tendencies, and appetites of an individual as guided by pleasure seeing principle. The **Ego** functions as a police man to check the unlawful activities of the Id. The Ego is nothing but the awareness of a struggle between the Id and the outside environment. If follows the principle of reality and acts with intelligence in controlling, selecting and deciding what appetites have to be satisfied and in which way they are to be satisfied. The third system is **Super Ego**. It is the ethical moral arm of the personality. It is idealistic and does not care for realities. Perfection is its goal rather than pleasure. It is a decision - making body which decides what is good or bad.

**Theory of Psycho - Sexual development**

According to Freud an individual passes through five major stages of psychosexual development. Each stage is characterised by certain, behavioural changes. The stages are oral stage, anal stage, Phallic stage, Latency stage, Genital stage.

**Educational implications of psychoanalytic school**

It explains the complexity of human personality, helps to improve human personality and behaviour. It emphases right growth and development during the early childhood period as aspect that teacher should take care. The theory upholds a widened aim of education that is the development of wholesome personality. Freud discovered unconscious motivation which plays an important role in the process of learning. Teachers and parents must give children ample opportunities to express, not hold up their feelings. This school has thrown light on the causes of maladjustment and behavioural problems in children.

**Limitations of School of Psychoanalysis**

Freudian concepts like Id, Ego, Super ego, Libido etc: are hypothetical concepts which lack any scientific support. This school over emphasized sexual world and neglected social experience in the formation of personality. They avoided the sublime side of human behaviour.

1. **GESTALT SCHOOL OF PSYCHOLOGY**

The most prominent members of this school were Max Wertheimer, Kurt Koffka, Wolfgang Kohler and Kurt Lewin. This school psychology was developed in Germany (1912) as a reaction against both structuralism and behaviourism. The word ‘Gestalt’ means configuration or organized whole. They emphasized the role of configuration or organization in the perceptual field and highlighted the role of insight and understanding in learning. According to them the ‘whole is greater than its parts’. Individual perceives a thing as a whole and not as a mere collection of its elements. Learning takes place as a result of organization of the perceptual field by the learner in a meaningful and intelligent way.

**Contribution to Education**

Gestalt school emphasised the importance of presenting the subject matter as a whole in the class so as to make learning more meaningful. Gestalt principles have found its application in the construction of curriculum, organization of syllabus, scheme of studies, text books etc: Holistic method of teaching, evaluation, insightful learning, interdisciplinary approach to the study of problems, comprehensive educational programmes etc: draw their inspiration from this school. This school gives stress on an inter-disciplinary approach in education. It laid great emphasis on the role of motivation and definite goals and purposes in any type of learning.

**Limitations**

It failed to explain learning beyond perceptual experience and strengthening of behaviour through practice. They were not able to explain how previous experience influence learning and the learning by trial and error method.

1. **HUMANISTIC SCHOOL**

This school focused mainly on the sublime side of the human behaviour, which is different from psychoanalysis and behaviourism. This school discussed on the positive side of personality, the heights that each individual is capable of attaining. According to them the finer side of human nature includes creativity, beauty, justice, uniqueness, self- actualization, transcendence etc: they emphasized on a positive approach to life and sublimation of needs. Abraham Maslow and Carl Roger are the important personalities of this school. It gives an optimistic view of human beings, as persons who have the ability to grow (human potential).Though it does not deny the effect of the environment, it sees human beings as able to transcend it to some degree.They emphasize characteristics that are shared by all human beings such as love, grief, caring, and self-worth,freedom.

Humanistic psychologists are not primarily concerned with instinctual drives, responses to external stimuli, or past experiences. Rather, they consider conscious choices, responses to internal needs, and current circumstances to be important in shaping human behavior**.**

Basic Assumptions of this school are:

* An individual’s behavior is primarily determined by individual perception of the world around.
* Individuals are not solely the product of their environment.
* Individuals are internally directed and motivated to fulfill their human potential.
* Humans have free will; not all behavior is determined.
* All individuals are unique and have an innate (inborn) drive to achieve their maximum potential.
* A proper understanding of human behavior can only be achieved by studying humans - not animals.
* Psychology should study the individual case (idiographic) rather than the average performance of groups (nomothetic).

**Educational Implications**

* Educational psychology become humanistic
* Areas of interest and aptitude came in to focus in education field.
* Study of individual differences become must to develop personalities
* Motivational aspect is important for success in life
* Discipline should be based on freedom
* The view about education is changed to Education is the process to sublimate the emotions and instinct.
1. **NATIVISM**

Nativism is the view that certain skills or abilities are “native” for human. According to Nativism most basic skills are hard-wired in the brain at birth. Humans from birth have certain cognitive modules (specialized genetically inherited psychological abilities) that allow them to learn and acquire certain skills.Nativism implies that the brain has certain structures which play a role in the creation and development of knowledge and that part of this process is simply innate. This theory is in contrast to Behaviorism and Empiricism.

This theory is the opposite of the theory called the blank slate, or *tabula rasa*. Blank slate theories said that humans have almost no skills or abilities at birth: they learn these skills over the course of their life.

Nativism is popularized by [Jerry Fodor](https://simple.wikipedia.org/wiki/Jerry_Fodor), [Noam Chomsky](https://simple.wikipedia.org/wiki/Noam_Chomsky), Immanuel Kant, [and Steven Pinker](https://simple.wikipedia.org/wiki/Steven_Pinker). These psychologists  believe that humans are born with a set of abilities that help them learn other skills, such as speech.

Certain key traits of a species are not learned but emerge from mind that is in some way already set up to deal with the environment in which it will develop and function. This theory identifies [language](http://en.citizendium.org/wiki/Language) as a prime example of an 'instinct' that is unlearnable; instead, there is a linguistic mechanisms set out in the human mind by genes. It is in the same way that humans also start to [walk](http://en.citizendium.org/wiki?title=Walking&action=edit&redlink=1) and [birds](http://en.citizendium.org/wiki/Bird) take flight**.** They believe that nature supplies the human mind with specialized learning devices.Human mind is born with some innate knowledge. The mind is born with a number of innate categories which enable people to understand their senses. It is these categories make perception possible. Categories of space, time, and causality dictate all experiences. They are the part of the mind's structure. There is no way, we can look at the world except in terms of these categories and they, therefore, must precede experience in the human mind. Knowledge of these concepts is innate.

**Limitations**

* Nativism is sometimes perceived as being too vague to be falsifiable.
* There is no fixed definition of when an ability is supposed to be judged "innate" and how?
* Modern nativist theory makes little in the way of specific testable predictions.
1. **CONSTRUCTIVISM**

Constructivism is first of all a theory of learning based on the idea that knowledge is constructed by the knower based on mental activity. Learners are considered to be active organisms seeking meaning. Constructivism is founded on the premise that, by reflecting on our experiences, we construct our own understanding of the world consciously we live in.

Constructivism is a learning theory found in psychology which explains how people might acquire knowledge and learn. It therefore has direct application to education. The theory suggests that humans construct knowledge and meaning from their experiences. When a person encounter something new, the individual have to reconcile it with the previous ideas and experience, maybe changing what believe, or maybe discarding the new information as irrelevant. In any case, the individual person is the active creators of the knowledge. To do this, one must ask questions, explore, and assess what he knows.

"Constructivism is the philosophical and scientific position that knowledge arises through a process of active construction."*(Mascolol & Fischer, 2005)*

"As long as there were people asking each other questions, we have had constructivist classrooms. Constructivism, the study of learning, is about how we all make sense of our world, and that really hasn’t changed."*(Brooks, 1999.)*

In the classroom, the constructivist view of learning can point towards a number of different teaching practices. In the most general sense, it usually means encouraging students to use active techniques (experiments, real-world problem solving, projects) to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing. The teacher makes sure s/he understands the students' preexisting conceptions, and guides the activity to address them and then build on them.

John Dewey (1933/1998) is often cited as the philosophical founder of this approach. Bruner (1990) and Piaget (1972) are considered the chief theorists among the cognitive constructivists, while Vygotsky (1978) is the major theorist among the social constructivists.

**Principles of Constructivism**

* Learning is perceived as an active, not a passive, process, where knowledge is constructed, not acquired or transmitted.
* Knowledge construction is based on personal experiences and the continual testing of hypotheses
* Prior knowledge impacts the learning process.
* Initial understanding is local, not global.
* Building useful knowledge structures requires effortful and purposeful activity
* Each person has a different interpretation and construction of knowledge process, based on past experiences and cultural factors.

The main activity in a constructivist classroom is solving problems. Students use inquiry methods to ask questions, investigate a topic, and use a variety of resources to find solutions and answers. As students explore the topic, they draw conclusions, and, as exploration continues, they revisit those conclusions. Exploration of questions leads to more questions. There is a great deal of overlap between a constructivist and social constructivist classroom, with the exception of the greater emphasis placed on learning through social interaction, and the value placed on cultural background. For Vygotsky, culture gives the child the cognitive tools needed for development. Adults in the learner’s environment are conduits for the tools of the culture, which include language, cultural history, social context, and more recently, electronic forms of information access. In social constructivist classrooms collaborative learning is a process of peer interaction that is mediated and structured by the teacher. Discussion can be promoted by the presentation of specific concepts, problems or scenarios, and is guided by means of effectively directed questions, the introduction and clarification of concepts and information, and references to previously learned material.

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| **Role of the Teacher**Constructivist teachers do not take the role of the "sage on the stage." Instead, teachers act as a "guide on the side" providing students with opportunities to test the adequacy of their current understandings. They are the facilitator or animator for the knowledge construction. * The educator should consider the knowledge and experiences students bring to class.
* Learners construct their knowledge through a process of active enquiry.
* ‘Discovery’ is facilitated by providing the necessary resources.
* Knowledge is actively constructed & learning is presented as a process of active discovery.
* Provide assistance with assimilation of new and old knowledge.
* Learning programme should be sufficiently flexible to permit development along lines of student enquiry.
* Due to its interpretivist nature, each student will interpret information in different ways.
* Create situations where the students feel safe questioning and reflecting on their own processes.
* Present authentic tasks to contextualize learning through real-world, case-based learning environments. Support collaboration in constructing knowledge, not competition.
* Encourage development through inter-subjectivity.
* Providing Scaffolding at the right time and the right level.
* Provide opportunities for more expert and less expert participants to learn from each other.

Constructivist teachers encourage students to constantly assess how the activity is helping them gain understanding. By questioning themselves and their strategies, students in the constructivist classroom ideally become "expert learners." This gives them ever-broadening tools to keep learning. With a well-planned classroom environment, the students learn HOW TO LEARN.

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| **Traditional Class rooms** | **Constructivist class rooms** |  |  |
| Curriculum begins with the parts of the whole. Emphasizes basic skills. | Curriculum emphasizes big concepts, beginning with the whole and expanding to include the parts. |  |  |
| Strict adherence to fixed curriculum is highly valued. | Pursuit of student questions and interests is valued. |  |  |
| Materials are primarily textbooks and workbooks. | Materials include primary sources of material and manipulative materials. |  |  |
| Learning is based on repetition. | Learning is interactive, building on what the student already knows. |  |  |
| Teachers disseminate information to students; students are recipients of knowledge. | Teachers have a dialogue with students, helping students construct their own knowledge. |  |  |
| Teacher's role is directive, rooted in authority. | Teacher's role is interactive, rooted in negotiation. |  |  |
| Assessment is through testing, correct answers. | Assessment includes student works, observations, and points of view, as well as tests. Process is as important as product. |  |  |
| Knowledge is seen as inert. | Knowledge is seen as dynamic, ever changing with our experiences. |  |  |
| Students work primarily alone. | Students work primarily in groups. |  |  |

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1. **COGNITIVE NEUROPSYCHOLOGY**

The modern science of cognitive neuropsychology emerged during the1960s as a reaction to behaviorism. Scientists realized that there were other sources of data and consciousness to become a major area of interest. According this approach information is processed at the several locations in the brain. This processed information can either affect behaviour immediately or it can be stored in memory and influence behaviour at a later time. The term "psychology" had been waning in the 1950s and 1960s, causing the field to be referred to as "cognitive science". Cognitive neuroscience is an academic field concerned with the scientific study of biological substrates underlying cognition, with a specific focus on the neural substrates of mental processes. It addresses the questions of how psychological/cognitive functions are produced by neural circuits in the brain. Cognitive neuropsychology is a branch of both Psychology and Neuroscience, overlapping with disciplines such as physiological psychology, cognitive psychology and neuropsychology.

Cognitive neuroscience relies upon theories in cognitive science coupled with evidence from neuropsychology and computational modeling. Due to its multidisciplinary nature, cognitive neuroscientists may have various backgrounds in neurobiology, [bioengineering](https://en.wikipedia.org/wiki/Bioengineering), [psychiatry](https://en.wikipedia.org/wiki/Psychiatry), [neurology](https://en.wikipedia.org/wiki/Neurology), [physics](https://en.wikipedia.org/wiki/Physics), [computer science](https://en.wikipedia.org/wiki/Computer_science), [linguistics](https://en.wikipedia.org/wiki/Linguistics), [philosophy](https://en.wikipedia.org/wiki/Philosophy) and [mathematics](https://en.wikipedia.org/wiki/Mathematics).

Clinical studies in psychopathology in patients with cognitive deficits due to brain lesions constitute an important aspect of cognitive neuropsychology. Cognitive neuroscience can look at the effects of damage to the brain and subsequent changes in the thought processes due to changes in neural circuitry resulting from the ensued damage. Also, cognitive abilities based on brain development is studied and examined under the subfield of developmental cognitive neuroscience. Cognitive neuroscience overlaps with cognitive psychology, and focuses on the neural substrates of mental processes and their behavioral manifestations.

 The Important Aims of Neuropsychology are:

* Neuropsychology is useful for both research and clinical purposes.
* It explores the functional architecture of the mind and its neural correlates.
* It provides patients with a diagnosis and possibly with rehabilitative recommendations.

**Methods:** Methods employed in Cognitive Neuroscience include the following:

* Neuroimaging (Brain imaging): gives ‘functional map of brain’
* Neuropsychological Tests: to measure either brain function or psychological performance.
* Positron-Emission Tomography (PET) & Functional Magnetic Resonance Imaging (FMRI): These Techniques possible to identify the areas of the brain responsible for performing certain cognitive tasks by measuring blood flow in the brain.
* PET scans require the intravenous injection of radioactively labeled substances & sense the low-level radiation in the brain and produce 3-D images.
* Functional magnetic resonance imaging (fMRI) works on a magnetic signal and is used to “map the brain”.
* Electroencephalography (EEG) records the brain’s electrical activity and can identify changes that occur over milliseconds. EEG is often used in patients with epilepsy.
* Event Related Potentials (ERP): It involves measuring the electrical activity induced by the presentation of stimulus.
* Molecular Genetics & Molecular Genome Project: removing the specific gene from the genome of the animal and study the effects of subsequent developmental changes in the organism.

Cognitive Neuropsychology mainly deals with the following aspects and thus it contributes to the education field:

* + Memory, Its function , storage, retrieval and biological process
	+ Perception and its biological bases
	+ Psycho- neuro dysfunctions- reasons, process, treatment
	+ Intelligence
	+ Problem solving ability
	+ Psycho- neuro basis of Learning
1. **POSITIVE PSYCHOLOGY**

Positive psychology formed from the need for improved understanding of positive human behaviours to balance the negative focus of much mainstream research and theory in psychology. Secondly, there is a need to develop an empirically based conceptual understanding and language for describing healthy human functioning that parallel to the mental illness. Positive psychology as a key to understanding why are people (un)happy ? Its origin is in Humanistic psychology, which lacked scientific rigor & metamorphosed into the self-help/new age movement.Positive psychology is the branch of psychology that uses scientific understanding and effective intervention to aid in the achievement of a satisfactory life, rather than treating mental illness.

Seligman and Csikszentmihalyi define positive psychology as "the scientific study of positive human functioning and flourishing on multiple levels that include the biological, personal, relational, institutional, cultural, and global dimensions of life.

Positive psychology began as a new area of psychology in 1998 when [Martin Seligman](https://en.wikipedia.org/wiki/Martin_Seligman) chose it as the theme for his term as president of the [American Psychological Association](https://en.wikipedia.org/wiki/American_Psychological_Association), Though the term originates with [Maslow](https://en.wikipedia.org/wiki/Abraham_Maslow), in his 1954 book *Motivation and Personality*,and there have been indications that psychologists since the 1950s have been increasingly focused on the promotion of mental health rather than merely treating illness. The first positive psychology summit took place in 1999. The First International Conference on Positive Psychology took place in 2002.More attention was given by the general public in 2006 when, using the same framework, a course at Harvard University became particularly popular. In June 2009, the First World Congress on Positive Psychology took place at the University of Pensylvania. Positive psychology is the latest effort by human beings to understand the nature of happiness and well-being.The International Positive Psychology Association (IPPA) is a recently established association that has expanded to thousands of members from 80 different countries. The IPPA’s missions include:

(1) “Further the science of positive psychology across the globe and to ensure that the field continues to rest on this science”

(2) “Work for the effective and responsible application of positive psychology in diverse areas such as organizational psychology, counselling and clinical psychology, business, health, education, and coaching”

(3) “Foster education and training in the field.”

Applying Positive Psychology enables us to appreciate and reinforce the existing strengths and virtues in both personal and organisation fields.This does not mean that we should avoid dealing with problems, but we should deal with them from a positive and realistic perspective. "There are two complementary strategies for improving the human condition. One is to relieve what is negative in life; the other is to strengthen what is positive. Mainstream psychology focuses largely on the first strategy; Positive Psychology emphasizes the second" - Martin Seligman "Positive psychology is the scientific study of what enables individuals and communities to thrive" - International Positive Psychology Association.

Positive psychology is:-

* Nothing more than a scientific study of ordinary human strengths and virtues
* The study of the conditions and process that contribute to the flourishing or optimal functioning of people, groups and institutions.
* All about the personal qualities, life circumstances, individual choices, life activities, relationships, transcendence purpose, and socio cultural conditions that foster and define a good life.

Positive Psychology is built on the study of Positive Subjective Experiences, Positive Individual Characteristics, Positive Relationships, and Positive Social Institutions and communities. Positive Psychology creates, appreciates and amplifies a culture that focuses on strengths of character and gives a positive outlook about life and situations. It empower individuals, teams, and the organisation, while achieving their goals and help to experience a new and inspiring approach to work / life. It is a method to helps the individual to be happier and to learn, to understand, to apply and to be a good example for others. It includes Positive Education Positive Health, Positive Assessment, Positive Psychotherapy and Positive Organisations.

**Applications of Positive Psychology**

* Positive psychology can have a range of real-world applications in areas including education, therapy, self-help, stress management, and workplace issues.
* Using strategies from positive psychology, teachers, coaches, therapists, and employers can motivate others and help individuals understand and develop their personal strengths
	1. **Educational Psychology**

Education is the process of shaping of behaviour or modification of behaviour behaviour or to bring about some changes it is necessary to study the science of behaviour. Educational psychology is the application of psychological findings in the field of education. It is a systematic study of the development of the individual as well as the group of educant within the educational settings.

Relevance: It is a well-known fact that the study of educational psychology has influenced the educative process in many ways. Keeping into consideration the importance, the teaching of educational psychology has been made compulsory in any teacher education programme, to equip the prospective teacher with the necessary skills and competencies to enable him to deal effectively with teaching learning problems of the class. It is not the knowledge of subject matter alone which makes a good teacher. The knowledge of educational psychology helps the teachers to communicate their ideas effectively in the class.

**Significance of Educational Psychology in the Teaching-Learning Situation**

Educational psychology helps the teachers in the following ways:

**A.** **Contribution to theory of Education**

 1. **To understand developmental characteristics**: Teacher should know the characteristics of various stages of development viz infancy, child hood, Adolescence etc. So that he can utilize this knowledge in imparting instruction and moulding their behaviour according to the specified goals of education.

 2. **To understand the nature of class-room learning**: The teacher should understand his/her students’ abilities, influence and contribution of heredity and environment in the process of an individuals personality development, principles of learning, various approaches to the learning process, problems of learning and their remedial measures etc.

 3. **To understand individual difference**: A teacher has to face a class of 30 to 50 students who have a great range of individuals’ difference. He must adjust his teaching to the needs and requirements of the class so that each student can develop their inherent potentialities to the maximum.

 4. **To understand effective teaching - methods**: Educational psychology gives us the knowledge of appropriate methods of teaching. The teacher must be acquainted with the knowledge of various methods in order to organize his classroom teaching.

 5. **To understand the problems of children**: A teacher who is familiar with the fundamental principles of human behaviour applies his knowledge of psychology to solve problems of children.

 6. **Knowledge of mental health**: Knowledge of mental health is helpful to teacher to prevent maladjustment in children.

 7. **Curriculum construction**: Needs of the students, their developmental characteristics, learning pattern and needs of the society, all these are to be incorporated in the curriculum.

 8. **Measurement of learning outcome**: Psychological tools help the teacher to assess the learning outcome of the students. He can also evaluate his teaching methods and in the light of performance of the students, can modify his strategy of teaching.

 9. **Research:** We can control, direct and predict the behaviour of students on the basis of research studies in classroom teaching.

 10. **Guidance** for the education of exceptional children

 11. Helps to develop **positive attitudes** towards teaching profession in teacher trainees and provide them with the necessary competencies to meet the class-room challenges.

 12. Understanding of **Group Dynamics**:Teacher must understand the social behaviour and group dynamics in classroom teaching - learning.

**B. Contribution to Practice of Education**

 1. **Problem of Discipline**:

 Instead of corporal punishment new teachers who have knowledge of educational psychology tackle the problems of indiscipline by examining the causal factors leading to them in a more scientific way. He has changed his attitude from an autocrat to a democrat.

 2. **Use of Audio-visual Aids**:

 The use of audio visual aids makes the difficult concept more clear and definite and learning is more lasting. It is the contribution of educational psychology.

 3. **Democratic Administration**:

 Problems of administration are now solved by mutual discussion among various agents of school.

 4. **Time Table**:

 Now subjects are kept in the time table keeping into consideration their difficulty level and fatigue index. No two difficult subjects are taught in successive periods.

 5. **Co-Curricular Activities**:

Now we give importance to activities like debate, drama, scouting, games etc. for the harmonious development of the children.

 6. **Use of Innovations**:

Activity centered teaching, discussion method, microteaching, programmed instruction C.A.I. etc.

 7. **Production of Text books**:

Now we prepare text books keeping into consideration the intellectual development of children, needs and their interests at different age levels.

* 1. **Tools and techniques for collecting data:**
1. **Interview**

Interview is a technique of eliciting information directly from the subject about his personality in face to face contacts. It gives an opportunity for mutual exchange of ideas and information behaviour between the subject and psychologist. Face to face interaction can be structured and unstructured.

An unstructured interview in an open interrogation. Hence the interviewer asks the interviewee any question on any subject relevant to the situation. In the structured interview questions that are planned sufficiently earlier are asked at the time of the interview. A list of questions is prepared and after taking the subject into confidence the interviewer tries to get answers to the preplanned question. He attends to the content of the responses and also to the tone, behaviour and other similar factors for the total evaluation of the personality.

The limitations of this technique are that it calls for a well-trained competent interviewer and is costly in terms of labour, time and money. It also suffers from the subjective bias of the interviewer. We cannot prevent the subject from hiding his feelings or from giving selective responses. The points in favour of the technique are that answers are obtained to every question which is put to the subject. The subject can give answers for confidential and intimate questions in oral form than in written form. It permits explanation, adjustment and variation according to the situation.

1. **Observation**

Observation literally means, “looking outside oneself.” It is one of the basic methods for collecting data in almost all types of research studies. Observation may be defined as “a way of looking at or perceiving a kind of behaviour in a natural setting with a specific purpose in order to know completely the description of the behaviour followed by a systematic and scientific procedure. Observation can be carried out in different ways.

1. **Natural observation (Uncontrolled)**

 In this observation we observe the specific behavioural characteristics of children or adult in natural setting. Subjects do not become conscious of the fact that some one is observing their behaviour. Hence they exhibit their natural behaviour.

1. **Artificial observation (Controlled)**

 Here the specific behavioural characteristics of human beings are studied in the artificial conditions. Natural environment is being created in artificial manner, and the subject is put in this environment and his behaviours are studied.

1. **Direct observation**

 Hence the observer observes the specific behaviour of an individual directly with his sense organs or with the help of instruments, focussing on the individual. The behaviours are observed in a natural setting and recorded precisely as they occur.

1. **Indirect observation**

 There are some behaviours which cannot be observed like joy, jealousy, anger, frustration, sorrow, etc. which are demonstrated in different situations. These behaviours are to be studied indirectly through various other activities in which the individual is involved.

1. **Non participant observation**

 The observer is not a part of the group or situations in which he wants to observe the behaviour. Usually he keeps himself away from the group and observes all the behaviour of the group without making them aware of being observed.

1. **Participant observation**

The observer becomes a part of the group, which he wants to observe. He establishes rapport with members of the group so that they may be conscious of his presence and may exhibit their real behaviour. Being one among the group the observer studies the behaviour of the group.

**Merits**

 1. Observation is the natural and normal way of knowing not only the external world but also the mind.

 2. An observation of the outward manifestations of their mental activities is the only method at our disposal to know the minds of others.

 3. Observation comes to the aid of introspection and helps to acquire the necessary knowledge and removes the gap in the knowledge of our own mind.

 4. Observation enables to have knowledge of social behaviour or collective mind as refluxed in family observation.

**Demerits**

 1. Observation is useful only for collecting data about overt behaviour which is manifested in a number of activities. This overt behaviour does not provide reliable information regarding the internal mental process.

 2. The subjectivity of interpretation is another demerit. The observation may be biased in his interpretation by his likes and dislikes.

 3. The method of observation leaves the matter of accounting for the facts “How and Why” of interpretation of data.

 4. Observation is subjected to two types of errors ie. sampling error and observation error. Sampling error occurs because of inadequacies of selecting situations to be observed. The observation error may be due to lack of knowledge of background of the situations to be observed.

**c) Clinical Method or Case Study Method**

The clinical method is used for studying the behavioural problems of a maladjusted or deviant individual. The term ‘case’ is used in psychological studies to indicate an individual facing problems that could be solved only on the basis of an in-depth study. A child who is socially maladjusted or emotionally disturbed or is experiencing unusual problems in the study of a subject is considered a clinical case. A clinical study is an in-depth study of the case in all its details. Hence clinical method is also known as case study or case history method. It is characterized by the detailed, realistic, concrete description and explanation of a case. The complete and detailed study of a case may involve the use of observation, interview, medical examination, use of various psychological tests etc. Information from all sources about the past and present of the case is pooled together in a sequential order to prepare a comprehensive case history. This is thoroughly analysed in order to locate the causes of maladjustment and plan remedial procedures.

The case study method is that method of behaviour investigation in which we try to study the behaviour of an individual in all the essential aspects by analyzing the past record, present position and future possibilities regarding his felt problem or otherwise guidance function. The main objectives of case studt are: 1) Diagnosis and treatment of behavioral problems

 2) To provide better counselling and guidance

**Merits and Demerits**

The chief merit of the clinical method is that it could be safely employed to study indepth, a particular individual with respect to the problem area concerned. Clinical method provides an intensive study meant for gathering all possible details regarding individual behaviour. In this study the scope and range of study is wide and comprehensive. The information received through the case study may prove effective in the solution of felt problems or rendering proper educational, vocational and personal guidance since the data collected for the study is very personal and original.

It needs a lot of effort on the part of the clinical researcher. The case study work is quite wide and professional work. The scope of the study is limited. The method is meant only for individual cases and end with the diagnosis and treatment of the case under study.

1. **Sociometry**

It is a technique of assessing the social relationship among members in a social group through the measurement of the frequency of acceptance or nonacceptance between the individuals of the group. From the data collected teacher could make a social map which is known as sociogram. It shows the social relationship among the students and identifies the stars, cliques, pairs, mutuals, isolated or neglected in the class.

Moreno has conducted studies on group formation in the class with the help of sociometric techniques. He administered definite questions to the students as (1) Name 2 friends from your class whom you would like to go on a picnic. (2) Name one student in your class with whom you would like to study with. Data was collected. Analysis of sociometric studies shows the following patterns of relationship among the members of a class. (Sociogram is a diagram which shows relationships that exists in a particular group)

* Stars: There are pupils in the class whom majority of the students like. They are called stars of the class.
* Isolates: Pupils whom no member of the class likes or wants to associate with them. They are rejected by all. They are called isolates.
* Mutual Pairs: There are students who mentioned each other. There is reciprocal relationship among mutual pairs of students.
* Chains: There were chains where A choses B and B choses C. Another phenomenon which is evident from the analysis is of closed circle where A like B, B likes C and C likes A.

A teacher can help isolates in the following ways:

1) The teacher must maximize the chances of early success in children because failure at early stage develops frustration and withdrawal from social situation.

2) The teacher must select few students from the class who show least aversion to the isolates and form an occasional group, small in size of isolates and other promising classmates. The group should be asked to work together on a task, in which the isolates have some hope of success. Success breeds success. Finding a measure of success the isolates may throw some of the defenses that made them unpopular.

3) The teacher should make moderate praise of the isolates whenever they succeed in some school work.

4) The teacher must find out those skills and hobbies in which isolates show some promise and should try to develop them.

5) The teacher should discuss the problems of isolates with them.

Characteristics of Popular Students:

1) Intelligence is definitely a major factor for popularity.

2) Achievement: Students who are low achievers, are not selected by other students. Students of average academic achievement may be as popular as students with high achievement.

3) Personal Appearance: It is reported that students with attractive personal appearance are selected and liked by many.

4) Adequate Adjustment: Popular students are well-adjusted emotionally and socially. They are not too much dependent on adults but they do not hesitate to ask for guidance and help where necessary.

5) High Self-concept: Popular students have high aspiration, high self-confidence, and are honest, fair, loyal, and sincere in their dealings with others. Sometimes distinction in games, sports or dramas, speeches make a child popular among his friends.

1. **Checklist**

The checklist as the name indicates, is a selected list of words, phrases, or paragraphs following which an observer records a check to denote the presence or absence of whatever been observed. It may include items which represent expected desirable or undesirable forms of behaviour, a sequence of skills associated with a given operation or a group of ideas. This is something like two dimensional chart in which the traits or other phenomena measured are noted in one dimension and the names of examinees in the other. Checklists usually offer a yes/no format in relation to student demonstration of specific criteria. They may be used to record observations of an individual, a group or a whole class. An observation checklist is a list of things that an observer is going to look at when observing a class. This list may have been prepared by the observer or the teacher or both. The result of the observation are recorded by checking (using some symbol like tick mark) against each of the behaviours noted in the case of particular student.

1. **Questionnaire**

A questionnaire is a [research](https://en.wikipedia.org/wiki/Research) instrument consisting of a series of [questions](https://en.wikipedia.org/wiki/Question) (or other types of prompts) for the purpose of gathering [information](https://en.wikipedia.org/wiki/Information) from respondents. The questionnaire was invented by the [Statistical Society of London](https://en.wikipedia.org/wiki/Statistical_Society_of_London) in 1838. A questionnaire is a [written](https://www.collinsdictionary.com/dictionary/english/write) [list](https://www.collinsdictionary.com/dictionary/english/list) of questions which are [answered](https://www.collinsdictionary.com/dictionary/english/answer) by a [lot](https://www.collinsdictionary.com/dictionary/english/lot) of people in order to [provide](https://www.collinsdictionary.com/dictionary/english/provide) information for a [report](https://www.collinsdictionary.com/dictionary/english/report) or a [survey](https://www.collinsdictionary.com/dictionary/english/survey). Often, questionnaires are designed so that answers to questions are scored and scores summed to obtain an overall measure of the attitudes and opinions of the respondent. They may be mailed to respondents (although this approach may **lower** the response rate). the questionnaire have advantages over some other types of surveys in that they are cheap, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardized answers that make it simple to compile data. However, such standardized answers may frustrate users. Questionnaires are also sharply limited by the fact that respondents must be able to read the questions and respond to them. Thus, for some demographic groups conducting a survey by questionnaire may not be concrete. As a type survey, questionnaires also have

1. **Rating Scale**

Rating scale is the term applied to expression of opinion or judgment regarding some situation, object or character. Opinion is usually expressed on a scale values. It refers to a scale with a set of points, which describe varying degree of the dimension of an attribute being observed. It is a modified checklist. They have much wide range of application and can be used for teacher-ratings, personality –ratings, school appraisal, sociological surveys etc: They may be used to describe the behaviour of individuals, the activities of entire group, and the changes in the situation surrounding them or many other types of data.

The important uses of checklist and rating scales are:

* Promotion of good teaching
* Assistance in curriculum planning
* Improvement in administration

This scheme of rating scale enables the evaluator discriminate the examinees more precisely than by an ordinary checklist. There are different rating scale according to the value points like five point scale, seven point scale, nine point scale, eleven point scale ect: Normally the number of points fixed is an odd number, for the convenience in statistical manipulation. The point obtained by an individual can be quantified also by allotting a convenient score to each point.

1. **Anecdotal Record**

An anecdote is an account of an event in a child's day. The record of this event can be detailed or brief. These short reports describe, in a factual way, the incident, its context, and what was said or done by the participants. In most cases, anecdotes focus on very simple, everyday interactions among children, children and adults as well as children and materials in the environment.

Ideally, the anecdotal record should be recorded as it unfolds or immediately after. However, anecdotal records usually have to be written later at the end of the day. Keeping brief notes on index cards or sticky notes carried in the pockets can be helpful. Jotting one-word reminders or short phrases on the cards about the event can provide a set of reminders when the anecdote is written.

**Characteristics of Anecdotal Records:**

* Simple reports of behavior
* Result of direct observation.
* Accurate and specific
* Gives context of child's behavior
* Records typical or unusual behaviors

Anecdotes capture the richness and complexity of the moment as children interact with one another and with materials. These records of child behavior and learning accumulated over time enhance the teacher's understanding of the individual child as patterns or profiles begin to emerge. Behavior change can be tracked and documented, and placed in the child's portfolio resulting in suggestions for future observations, curriculum planning and student or parent conferences.

1. **Cumulative Record**

The student's Cumulative Record is the compilation of information maintained in the school for the student. It contains factual, objective and professional information regarding a student's academic progress, mid-term and final marks, adaptations and attendance. The progress in the developmental pattern of each student is recorded cumulatively from period to period in a comprehensive record designed fpr the purpose is known as cumulative record. It could involve physical development, relevant details of health conditions and serious illness if any, conditions of home environment, intelligence, levels of attainment in various subjects of study, special interest and attitudes, personality traits, participation in co-curricular activities etc: A Cumulative Record Card is that which contains the results of different assessment and judgments held from time to time during the course of study of a student or pupil. Generally it covers three consecutive years. It contains information regarding all aspects of life of the child or educed-physical, mental, social, moral and psychological. It seeks to give as comprehensive picture as possible of the personality of a child.

“The significant information gathered periodically on student through the use of various techniques – tests, inventories, questionnaire, observation, interview, case study etc.”

Basically a Cumulative Record is a document in which it is recorded cumulatively useful and reliable information about a particular pupil or student at one place. Hence presenting a complete and growing picture of the individual concerned for the purpose of helping him during his long stay at school. And at the time of leaving it helps in the solution of his manifold problems of educational, vocational and personal-social nature and thus assisting him in his best development.

It will give a comprehensive picture of the past and present of the student and hence it will help in making predictions about the future. It will be useful for counselling purpose if needed.

According to Jones, a Cumulative Record is, “A permanent record of a student which is kept up-to-date by the school; it is his educational history with information about his school achievement, attendance, health, test scores and similar pertinent data,” If the Cumulative Record is kept together in a folder it is called Cumulative Record Folder (CRF). If the Cumulative Record is kept in an envelope it is called a Cumulative Record Envelop (CRE). If the cumulative Record is kept in a card it is called a Cumulative Record Card (CRC).

* 1. **Concept of Growth and Development**

Human life starts from a single fertilized cell. The constant interaction with the environment results in the growth and development of the innate capacities, abilities and potentialities of the child. It is only with a knowledge of growth and development of the learner at each stage of his life that it is possible for the teachers to render proper guidance, arrange the learning situations and plan the instructional programmes for bringing desirable changes for harmonious development of their personalities.

|  |  |
| --- | --- |
| Growth | Development |
| Changes in a particular aspect of body. | Overall changes resulting in improved functioning of the individual. |
| Changes in the quantitative aspects. | Changes in qualitative aspects. |
| Doesn't continue throughout life – stops with maturity | continuous process – doesn't end with maturity |
| Narrow in its meaning. | Wider and comprehensive. |
| May or may not bring development. | Possible without growth. |
| Changes are observable and can be quantified. | Changes are not observable and cannot be quantified |
| Physical and external in nature. | Internal and can be physical, social, emotional, intellectual etc. |
| Structural. | Functional |

* 1. **Stages and Dimensions of Growth and Development**

The human individual begins life by the fusion of two cells, the ovum from the mother and the sperm from the father. Under favorable conditions this fertilized cell rapidly grows by a process of division. It first divides into two cells, then into four, then into eight and finally into millions of cells by the time of birth. When he takes his birth, human child is a helpless mass of living flesh. He is about 18” length and about 7 pounds in weight. During the next twenty years he grows into an adult about 3½ times his initial length and 20 times his initial weight. These are very important changes and the teacher should know about the great psychological and physiological changes. The whole period of development from conception to maturity may be divided into two parts - development from conception to birth ie. prenatal and development from birth to maturity i.e. post natal period.

**1. Germinal period:**

 The fertilized ovum is at first unattached and free moving. During this period the human body is an egg - like organism. By the end of the second week it gets implanted in the tissues of the uterus of the mother. From this time the developing child exists and grows as a parasite receiving nourishment from the mother. However the foetus leads its own life and grows according to its own nature.

**2. The Embryonic period:**

 This lasts from the end of the second week until the end of the 10th week. There is pronounced growth in size and the general structure and form. At the end of this period the embryo has the appearance of a human being.

**3. Foetal period:**

 This lasts from the end of the embryonic period until birth. In the earlier part of this period there is rapid growth and increase in cells. In the latter part, the cells increase in size.

**Significance of Prenatal period in the later growth and Development of Children**

 Internal and External influences have their inevitable impact from the stages of conception to the hour of birth. So extreme came for the expectant and nursing mother is recommended. Even the thoughts going on the expectant mother’s mind influence the growing embryo. Negative emotional upsets of any kind will disturb normal growth of the developing organism in the mother’s womb.

 **1. Mother’s emotional state:**

 Pregnant women may be subject to stress from various sources - poverty, marriage problems, family illness, problems at work and so on. When a pregnant woman feels continued anxiety, distress, trauma, or extreme fear or grief her body reacts with profound, involuntary changes which will affect the developing foetus.

 **2. Illness:**

 Diabetes, Rh in compatibility, German measles or Rubella etc. are dangerous for the developing child.

 **3. Nutrition:**

 The expectant mother is all the time feeding the germ cells that will take different forms before it takes the final shape of the human being. So the mother needs double diet in essence. Her diet should be rich so as to give adequate nourishing element to the developing organism in addition to the food required for the healthy make up of herself.

 **4. Age of mother:**

 Both teenage pregnancy and pregnancy after 40 are risky. A woman after 40 does not have that rejuvenating physical and mental energy that she used to enjoy before. This declining state of health naturally influences the organism in the mother’s womb. In the case of teenage pregnancy, uterus may be immature, often they are not psychologically prepared for pregnancy resulting in premature deliveries and long labours.

 **5. Mothers work conditions:**

 Mother work conditions such as standing for long periods, may affect the child.

 **6. Parity:**

It takes a woman’s endocrine system some 4 years to return to its previous level after a pregnancy.

 7. External factors like use of drugs, smoking, alcohol and radiation during pregnancy also affect the fetus

The postnatal period is divided into:

 (1) Infancy (2) Childhood (3) Adolescence (4) Adulthood.

**Infancy**

The characteristics of infancy are

1. Rapid growth and development

2. Dependence

3. Self-assertive

4. Period of make believe and fantacy

5. Selfish and unsocial

6. Emotionally unstable

7. Intellectually not developed

8. Sexual development

According to Freud a child passes through five major stages of psychosexual development. Each stage is characterised by certain, behavioural changes. The stages are given below.

1. **The oral stage:**

 The focus of pleasure is mouth. The child’s love object is his mother’s breast which he sucks to satisfy his hunger. The child’s development starts with the act of nursing by his mother.

2. **The anal stage:**

 It refers to the stage when the focus of pleasure shifts for mouth to the anus. The child takes interest in the activities pertaining to the anus and pleasure is drawn from activities like urinating and defecation.

**3. Phallic stage:**

 This stage refers to around the age of 3 to 6. The focus of pleasure shifts from anus to sex organs. Child masturbation is very common during this period. Another important development during this phase is of Oedipus complex and Elektra complex.

**4. Latency stage:**

 During this stage, infantile sexuality becomes less important. The child engages himself in learning skills and in the development of values.

**5. Genital stages:**

 The focus of pleasure shifts to the member of the opposite sex.

**The Stage of Childhood**

**EARLY CHILDHOOD (3-6 years):**

 This is the foundation period of life. Basic attitudes and behaviour patterns which determine the child’s future personality are developed in the first 5 or 6 years. It is also known as “pre-school age”. The major development in this period is the control over environment. Growth proceeds at a slow rate. It is the ideal period for learning new skills. He is adventurous. Speech skills are built during early childhood. The ability to comprehend meaning develops. It is however a period of heightened emotionality, characterized by temper tantrums, intense fears, and unreasonable out bursts of jealousy. The child is often obstinate, stubborn, disobedient, negativistic and antagonistic, and so he presents many behaviour problems for his parents. The child also acquires the preliminary training and experience needed to become a member of a ‘gang’. He became interested in a company. The nevativistic child then becomes co-operative. He identifies himself with the group. This period is also known as ‘pre-gang age’. Consequently personal and group rivalries also become common. He shows marked aggressiveness and sometimes gets involved in quarrels. He is selfish, but is also sympathetic, and he seeks social approval. Naturally many leadership qualities are developed in this period.

 Early childhood is also referred to as “the toy age”. The child imagines that toys have life qualities. Dramatization, drawings, paintings, games, and movies attract the child. He develops interest in reading, and develops some normal concepts also.

**LATE CHILDHOOD (6-12 years):**

 Late childhood extends from the age of 6 years to the onset of puberty. Educationists call it “the elementary school age.” To the psychologist it is the “gang age” because at this age the child builds up friendship with the peer group. The child has now deep personal concern about himself and acts on the impulse of the moment regardless of the consequences. It is a period of slow and uniform growth. The weight and height increase slowly and fairly uniformly. The child develops many different skills during this period. He learns correct sentence structures. There is violent expression of emotions. Jealousy and laughter are intensified. Affection is expressed only slightly, but a strong desire for acceptance as a member of the gang is developed. He wants to be a well adjusted member of the social groups, but likes to have members of his own sex only as friends. He becomes interested in outdoor games too. He is susceptible to suggestions and learns to compete, co-operate, and work with others. Naturally his understanding of the environment increases. This period is known as “the play age”. The child is much interested in motor activity of all sorts. He develops different types of skills, self-help skills, social help skills, and play skills. He understands that speech is a very important tool for group belonging and hence it tries to improve its speech. During the closing years of the childhood there is a very strong desire in the child to be a member of a gang. Social development takes place so rapidly that it becomes a co-operative, well-adjusted member of a social group consisting of his peers. Girls mature more rapidly than boys during this period.

**EARLY ADOLESCENCE (12-16 years)**

‘Adolescence’ - the word comes from the Latin word adolescere’ which means to grow to maturity. It is a period of transition when the child is neither a child nor an adult. During this period of preparation for adulthood, the attitudes and behaviour of an adult-type replace childish behaviour and attitudes. Mental emotional and physical maturity takes place at adolescence. According to G. Stanley Hall, adolescence is a period of “Storm & Stress”. The storm and stress emphasized by Stanley Hall are much greater in early adolescence than in late adolescence. Early adolescence begins with the sexual maturity of the individual. The most outstanding characteristics of this period are extreme instability, unhappiness and numerous problems of uncertainty. His moods will be changing quickly. It is very difficult to predict the behaviour of an adolescent. There will be more problems than at other ages. Many of the problems relate to areas of life such as sexual relationships. The other problems related to physical appearance, health and different kinds of social relationships. The sex organs reach a stage of maturity that makes procreation possible. Most of the secondary sex characteristics appear. Anger, fear, jealousy, worry, envy, affection and joy are the most important emotional traits of the early adolescent period. His interests and experiences get widened and he becomes a member of several groups, often of different kinds of persons with different interests and different points of view. These groups bring about certain changes in his social attitudes and behaviour. New social, personal and recreational interests develop during this period. He shows interest in all forms of group activities. He becomes interested in members of the opposite sex and in parties. His interest in appearance and dress increases. He wants to be free and independent. There will be deterioration in the relationships of the young adolescent with the other members of the family. There will be conflicts between himself and his parents and siblings.

**LATE ADOLESCENCE (16-21) years:**

 The extreme instability of the early adolescence is gradually replaced by greater stability. This greater stability helps him to make better adjustments to life. Greater stability is seen in all his attitudes, interests and behaviours. He solves problems courageously. He will be in a position to make decision without depending unduly upon others. His problems relate to personal attractiveness, family and social relationships etc. He feels that he is not understood by parents, teachers etc. The rapid physical growth halts down during late adolescence. The secondary sex characteristics mature in size and function at this stage, but the sex organs may not be mature for a year or two. The intellectual growth reaches the final stage. He wants to be in the company of his peers because his own age group gives him status, recognition and esteem that he does not get at home. Emotional maturity, moral maturity and religious maturity are shown in late adolescence. There will be better relationships between most of the older adolescents and their parents.

**Emotional Development during Infancy**

a) Emotions are frequent.

b) Emotions are expressed in relation to concrete objects.

c) Emotions are temporary, if a child who is weeping given a toffee, will become happy.

d) Emotional expressions are intense.

e) They fail to hide their emotions but express them indirectly through different activities such as crying, nail biting, thumb-sucking, and speech difficulties.

**Methods for Training of Emotions :**

1) **Repression of Inhibition** : Here the undesirable emotional behaviour of the child is checked by imposing restrictions and giving punishment. It is negative method of exercising control over emotions and in no way helpful for the healthy emotional development.

2) **Industriousness or Mental Occupation** : Another method is to keep oneself busy in some constructive activities. So there should be the provision for co-curricular activities, and leisure time activities.

3) **Redirection and Sublimation** : The direction of the flow of emotional energy is changed through the process of redirection and sublimation from an undesirable goal to a socially desirable one. Sublimation does not destroy emotion, it only changes the mode of its expression. Psychoanalysts revealed that all the greatest poets, authors, Scientists, leaders, Saints, and great persons could contribute to human well being only through sublimation of their love for the opposite sex, as a result of which their sexual instinct was sublimated into love of God.

4) **Catharsis** : In some way or the other, the individual is provided with the opportunity of self-expression so that the pent up emotions get appropriate out let.

**1.7. Erik Erickson’s View of Psycho Social Development of Personality - Educational Significance**

 Erik Erickson, a famous psycho analyst developed the theory of psycho social development. He says that the development of an individual is the result of his interaction with his social environment. Right from birth his social development puts him under specific pressures or conflicts (crisis) by making specific demands at different ages or developmental stages of his life. He has to resolve such crises by reacting psychologically in his own way, depending upon his circumstances. The social demands increase as he grows up, so at each stage there will be a particular crisis. In which way this crisis is resolved has a major bearing on the development of one’s personality. Erickson discovered 8 such crises of life arising at different ages and linked them with the 8 stages of one’s psycho social development covering one’s entire life span.

**Stages of Psychosocial Development Specific Age**

1. Trust Vs Mistrust Birth to 1½ years

2 Autonomy Vs Shame 1½ years to 3 years

3 Initiative Vs Guilt 3 to 6 years

4 Industry Vs Inferiority 6 to 12 years

5 Identity Vs Role Confusion Adolescence (12 - 20 years)

6 Intimacy Vs Isolation Early Adulthood (20 - 45 years)

7 Generatively Vs Stagnation Middle Adulthood (45 - 65 years)

8 Ego Integrity Vs Despair Later Adulthood

 (65 years and afterwards)

Personality traits like trust, independence, initiative, industry and identity are developed to form a meaningful personality. One can also develop into a trouble some, confused and doomed personality by failing to resolve the crises of each stage and develop negative traits like mistrust, shame, doubt, guilt feeling inferiority etc. Since these traits are acquired through one’s active interaction with the social environment this is known as psychosocial development.

**Stage I: The period of Trust Vs Mistrust (Birth to 1½ years)**

 The infant is confronted with the crisis termed trust vs mistrust. The way it is nourished, handled, protected and kept safe and comfortable may provide the baby with the sense of security or insecurity a feeling of trust and mistrust in mother and in its surroundings. This may be carried over to the stages of development to follow and reflected in developing personality.

**Stage II: The period of autonomy Vs Shame and Doubt (1½ yearsto 3 years)**

 After the development of motor and language ability the child now engages in exploring his environment. They develop autonomy. In case of over protection, restrictions of parents, they begin to doubt their ability and ultimately began to feel ashamed in the presence of others.

**Stage III: Initiative Vs Guilt (3 - 6 years)**

 If the child is encouraged by parents and guardians he will develop initiative. If he is discouraged he will develop a sense of guilt leading to hesitation, indecision, lack of initiative in planning and carrying out his life activities.

**Stage IV: Industry Vs Inferiority (6 -1 2 years)**

 They go to schools and learn many skills. They have to compete with their peers in terms of competence and productivity. If a child performs well in school and at home he is admired, so he develop a sense of achievement. He works hard: If his performance remains inferior to that of his peers or he does not satisfy his teachers, parents with his performance, he may begin to look down upon himself and develop a sense of inferior. Teachers and school authorities must structure their classroom and school environment in such a way as to help the students to maintain a positive attitude and view themselves as capable and valuable individuals.

**Stage V:Identity Vs Role Confusion (12 - 19 years)**

 If they have developed previous skills they begin to search for their own personal identity. They ask some questions like who am I? What have I become? etc. This role confusion is linked with (1) sudden and rapid body changes (2) anxiety related with future education and career. If he fails in resolving crises, then he feels completely bewildered, not knowing what to do and how to behave on his own. The lack of self identification and role confusion may lead to impulsive behaviour. So teachers and parents must treat adolescents as adults and recognise them.

**Stage VI: Intimacy Vs Isolation (20 - 45 years)**

 Early adulthood is characterized by intimate relationship as husband and wife and friends. If one fails in achieving intimacy he develops isolation

**Stage VII: Creativity Vs Stagnation (45 - 65 years)**

 He is interested in guiding the next generation by nurturing his own children, guiding and directing, other young people etc. As opposed to the sense of generativity there is a tendency to become egocentric and selfish. This leads to stagnation and personal impoverishment.

**Stage VIII: Ego Identity Vs Despair (65 onwards)**

 The successful resolution of all the crises of different stages provides a sense of fulfillment and satisfaction to one’s ego. A person with a sense of ego integrity is at peace with the life he has lived. Others look back on their lives with despair and feel dissatisfied with the way they have lived their lives.

**1.7. Kohlberg’s Theory of Moral Development**

Lawrence Kohlberg is a psychologist of Harward University who put forward the theory of development of moral judgement in the individual right from the early childhood. He studied 100’s of children of different cultures.

The popular view is that children imbibe the sense and methods of moral judgement from their parents and elders by way of learning. He says that internal or cognitive processes like thinking, and reasoning play a major role in one’s moral development ie. the way children make moral judgement depends on their level of intellectual development as well as on their upbringing and learning experiences.

For studying the process of moral judgement in human beings Kohlberg first defined moral development as the development of an individual’s sense of justice. For estimating sense of justice he concentrated on one’s view on moral judgement consisting of a set of moral dilemmas. For eg: should a man who can not afford the medicine his dying wife needs, steal it? Should a doctor mercy kill a fatally ill person suffering terrible pain. Is it better to save the life of one important person or a lot of unimportant persons. From the responses of the test he came to the conclusion that there exist universal stages in the development of moral values and the movement from one stage to another depends on cognitive abilities rather than the simple acquisition of moral values of one’s parents, elders and peers. He identified 3 levels of moral development, each containing two stages.

**Level I: Preconventional Level (4-10 years)**

The child begins to make judgements about what is right or wrong, good or bad. But the standards by which he measures the morality are these of others. He is persuaded to take such judgement either to avoid punishment or to earn rewards.

 **Stage 1: Punishment and obedience orientation**

 A child decides what is wrong on the basis of what is punished. Obedience is valued for its own sake, but he obeys because adults have superior power. He tries to obey his parents to avoid punishment.

 **Stage 2: The Stage of conformity to obtain rewards and favours in return**

 In the second stage child’s moral judgement is based on self-interest and considerations of what others can do for them in return. They value a thing because it has some practical utility for them.

**Level 2: Conventional Morality (10 -1 3 years)**

At this level also children’s moral judgement is controlled by the likes and dislikes of others - the conventions, rules and regulations and the law and order system maintained within the society. Stealing or mercy killing would thus be judged wrong because it is considered wrong by society at large and by legal system.

 **Stage 3 : The stages of conformity to group norms or goodboy and nice girl orientation**

 The childs’ moral judgement is based on the desire to obtain approval of others and avoid being disliked by being declared as good boy or good girl.

 **Stage 4: The stages of confermity to rules in the society (law and order orientation)**

 Children’s moral judgements are governed by conventions as well as the laws and mores of the social system. They follow rules and regulations of society and take decisions about things being right or wrong with a view to avoiding ensure by the elders, authorities or the social system.

**Level 3: Post Conventional Level (13 and afterwards)**

 **(Self accepted moral principles level)**

He does not value a thing or conform to an idea merely because of consideration of the views of others, conventions or the law and order system of society.

 **Stage 5: Stage of conformity to democratically accepted principles and mores**

 Children become aware that there are different views and values, valued are understood as relative. They begin to think in rational terms, valuing the rights of human beings and the welfare of the society. At this stage the decision about mercy killing may be left to the individual who is suffering and if so needed the concerned laws may be amended for the welfare of society at large.

 **Stage 6: Stage of conformity to universal ethical principles**

 The young person develops and follows self-chosen ethical principles in determining what is right. Now the decisions of the individual are now based upon his conscience and the belief in universal ethical principles of equality justice respect etc. People act according to the inner voice of their conscience and lead a life that they can without self-condemnation or feeling of guilt or shame.

 It is clear that children begin to think about morality in terms of justice or right and wrong at a very early age, yet they have to wait until adolescence or adulthood for the dawning of the stage of true morality. All people may not pass through the 3rd level of moral development. Most adults cross the 2nd level and only very few can reach the 6th stage.

* 1. **THE PSYCHOLOGICAL NEEDS OF CHILDREN AND ADOLESCENTS**

For the well-being of an individual there are certain needs to be satisfied. First there are the primary needs (Vital needs and physiological needs) such as food water, sleep, elimination, good health etc. There are also the psychological needs such as affection, security, social approval, freedom and personal worth.

The needs are inter-related ie. satisfaction of one will lead to the satisfaction of another. The satisfaction of certain physical needs is a necessary condition for the satisfaction of certain other needs. The relative importance of needs varies from person to person.

**Affection:** For a healthy emotional development, affection plays an important role. The child needs to be liked and loved. Affection shown by others strengthen the child’s feeling of security. In return the child develops affection for others, his parents and the other members of his family. The child who is not loved cannot easily develop proper attitudes and concepts regarding his work; love and affection is something learnt and mutually exchanged. Let the child feel your love, let him be treated kindly and you will receive his affection. Love begets love.

Security: A sense of security is very important for happiness. We need both actual security and a sense of security. Behaviour of an individual is greatly influenced by the need for security. Thus people want to earn adequate income and to save money for the sake of economic security. There is a human need for friends and companions (gre-gariousness). This need for social security makes people join various groups like gangs in childhood and later fraternity clubs, churches, unions etc. for social recognition.

Children desire to be respected members of their class; they want the approval and friendship of their teachers. Socialised instruction (group planning, discussions, committee work and group activities) contribute most to socialised security.

**Personal worth:**

Every human being wants to be recognised, to be well thought of and respected. The infant wants attention while school children seek the appreciation of their teachers and fellow pupils. Various forms of recognition like praise, rewards, prizes etc. help to increase our self-esteem and make us happy.The urge for recognition is strong in children. The teacher should always try to enhance the feeling of personal worth among his pupils. Achievement or improvement helps to increase one’s feeling of personal worth. The teacher should be alert to give recognition to any creditable performance of his pupils through praise, prizes, honor rolls etc.

**Social approval**

It is one of the strongest need of children. The child craves for attention, sympathy and acceptance by the other members of his little community (family, gang, class etc.) Individuals sometimes undertake very dangerous tasks because of their desire for social approval. The desire for social approval is a strong incentive to make one abide by the regulations of social groups.

**Freedom**

Children want to do things in their own way and to express themselves freely. There is the innate desire for activity and for pleasure. When their activities are controlled they feel unhappy and loose initiative. It is difficult for children to understand the purpose of rules and regulations. Naturally they do not like the teacher who are very strict. Teachers should understand that children need freedom to grow as children and therefore should not apply to them of school children. Give them the needed freedom under the laws and regulations of their own making.

**Educational implications:**

Behaviour can be best explained in terms of needs, wants, urges, drives and motives. In order to make teaching effective and pleasant, the teacher should know the basic urges underlying the responses of his pupils. There can be various frustrations in one’s own life owing to various failures. Frustrated individuals are unhappy and develop tensions. On the other hand individuals whose devices are satisfied well will be happy and well adjusted. They will love others and in return be loved.

**Adolescents in Indian Context**

The typical child rearing practices in the traditional Indian Society with mother’s over-indulgence during infancy and childhood and later on, an abrupt separation from the mother with a transfer to the authority of the men of the family and the subjection to an even strict requirement for correct behaviour causes identity confusion and results in varied forms of problem behaviours such as student violence, student strikes, drop outs from schools and colleges, disobedience, truancy and drug abuse and addiction. Indian children are brought up not to question authority. But at adolescence, they never accept authority, so lot of identity confusion. They have to take up responsibilities at a very young age.

These collide with the changing social, political, economic value systems in Indian society causing more identity confusion. The adolescent is like ‘Thrisanku’ being neither in the past nor in the present but midway with still emerging value systems and ideologies. This may result in disruptive behaviour.

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