

ADVANCED EDUCATIONAL PSYCHOLOGY

UNIT 1

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Educational Psychology

Educational Psychology is a branch of applied psychology. It applies the psychological principle in the field of education. It is the study of the behaviour of learners in educational situations. It is the study of the experiences and behaviour of the learner concerning the educational environment. It is the study of the psychological aspect of educational problems concerning psychological facts. Psychology is the science of behaviour in the most desecrates way.

But the modification of behaviour depends on some fundamental psychological laws and limitations. Educational psychologies study those facts and limitations. It covers the development of the child from early childhood to maturity, general facts of psychology which may have a relation with the modification of the behaviour of the child. Psychological methods are important in learning, measurement of intelligent, attitude, aptitude, interest and other problems related to the educational field are solved.

Definition of Educational Psychology

- Skinner: Educational psychology is that branch of psychology which deals with teaching and learning.
- Crow and Crow: Educational psychology describes and explains the learning experience of an individual from birth to old age.
- Peel: Educational psychology is the science of education.

Nature of Educational psychology:

Educational psychology has been tremendous advancement and gradually established itself as an independent study. Child education, diagnostic and remedial education, education for the gifted and handicapped, factors affecting learning, principles of evaluation etc. it as proof to the claim that educational psychology in a special field of study.

The study of classroom climate, techniques of behaviour modification, programmed learning, micro-teaching software and hardware, approaches computer-assisted instruction is all the area developed by the educational psychologies aimed at improving the interaction between the teaching and the learning.

- Educational Psychology is an applied branch of the subject psychology.
- Educational Psychology is the study of the behaviour of the pupil in relation to the educational environment.
- It gives the necessary knowledge and skill for giving education to the pupils in a satisfactory manner.

- It employs scientific methods and adopts a scientific approach to study the behaviour of an individual in an educational environment.

Scope of Educational Psychology

As Blair Jones and Simpsan said Educational Psychology attempts to solve the educational problems. Kolesnik said educational Psychology deals with

1. Difference among students
2. Motivation
3. Methods of instruction
4. Evaluation
5. Classroom Management
6. Mental Health and
7. Character Formation

H.C Lindgen said educational Psychology deals with

Learner

Teacher

Learning Experience,

The Learning Process,

The learning situation

a) The Learner

It deals with the need of knowing the learner and the techniques used to know the learner.

B) Learning Experience

Educational Psychology helps in deciding what type of learning experience are desirable at what stages of growth and development of the learner.

c) The learning process

Educational Psychology deals with the nature of learning and how it takes place methods of learning, improvement of memory, development of concept etc. D) The learning situation

It deals with the environmental factors that affect both teaching and learning.

E) The Teacher

The teacher himself is a very important element in the teaching process. Teacher's motivation, conflict, effectiveness, professional growth, mental health also included in the scope of educational psychology.

Difference between general and Educational Psychology

General Psychology gives a comprehensive view of human behaviour. Educational Psychology highlights the behaviour of the learner, learning experience, teacher, Learning process and learning situations are the five focal areas of educational psychology.

There is diversity in the classroom and educational psychology aims to prepare the teacher to realize the individual difference among his pupils to plan accordingly to maximize the achievement of each learner entrusted to his care.

STRUCTURALISM:

Wilhelm Wundt(1872-1920) a German professor was mainly responsible for the evolution of this school of psychology. He opened the world's first psychological laboratory in Leipzig in 1879. The main aim of this Laboratory was to study the structure of the mind. He focused his experiments on conscious experience involving one's thoughts, feelings, sensations, perceptions and ideas. As he focused his attention on the analysis of the components of the consciousness. His approach to psychology is called structuralism. Wundt and his students conducted experiments in the laboratory by using the act of introspection. According to him, psychology may be regarded as the science of consciousness or the study of experience, consciousness or experience can be broken or analysed into three basic elements. Physical sensations, feelings and images such as memories and dreams. For example, when we report the perceived experiences of a banana, we try to combine visual sensation (what we see) with the feeling (our likes or dislike for banana) and with images (past experiences with other bananas). Titchner concluded that the structure of the human mind was made up of more than 30,000 separate sensations, feelings and images and nothing else. Wundt and his followers like Titchener known as structuralists tried to provide a systematic study of the mind through the study of its structure by adopting introspection techniques.

Merits of Structuralism:

- Structuralism helped in establishing psychology as an independent and organized discipline.
- It provided introspection as a method of studying behaviour.
- Structuralism is credited with having taken the initiative in establishing the first psychological laboratory and employing the technique of systematic observation of the activities of the mind.

Criticism:

1. Structuralism is unable to cover all aspects of human behaviour.

FUNCTIONALISM

William James, the father of psychology in the USA, is the founder of this functionalism. He adopted a biological approach to the study the mind. He claimed that consciousness or experience cannot be broken up, into elements and there is no way to separate ideas, thoughts, sensations and perceptions. William James, through his doctrine of functionalism, advocated the theory of mental life and behaviour. He considered the mind to be a recent development in the evolutionary process. The function of which was to aid man's adjustment to his environment. The consciousness or mental life according to him is a continuous flowing unity. A stream that carries the organism in its adaptation to the environment. Our minds are constantly forging associations, revising experiences, starting, stopping, jumping back and forth in time for adding to our functional abilities to adopt to our environment. He concluded that habits are nothing but a function of the nervous system. When we repeat an activity number of times our nervous system is altered. So that the next time we engage in it we do so automatically without much conscious thought. Functionalism is regarded as a more scientific and more practical system of psychology.

Merits of functionalism:

- It emphasized the functionality of the contents of the curriculum by advocating that only those things should be taught to the children which they could apply in everyday life.
- The methods of and techniques of learning were made more functional through the ideas propagated by this system.
- This system widened the scope of psychology and educational psychology by developing a variety of new methods.
- The field of measurement and evaluation related to psychology and education has also been enriched by functionalism.
- Functionalism opened the way for the study of psychology in terms of the adjustment of the organism to its environment.
- Functionalism paved the way for applied research in response to the application of psychology to the practical problem. Particularly, in the field of educational psychology.

BEHAVIORISM

J.B.Watson was the founder of behaviourism. He concluded that the whole idea of consciousness cannot be proved by any scientific test for consciousness cannot be seen, touched or exhibited in a test tube. Even if it exists, it cannot be studied scientifically because admittedly it is subjected to private inspection.

Therefore if we intend to make psychology science of behaviour, we should concentrate only on the observable and measurable behaviour. Behaviourism as a method of studying behaviour focused its attention totally on the overt or observable behaviour. For this purpose, it tried to reduce all of man's

activity including his thinking, feeling and to the level of that behaviour which could be observed and objectively recorded. Thus, the behaviourist is not interested in the feeling of fear but pays attention to the changes in heart rate and blood pressure.

Which are the effect of fear and can be objectively measured.

Merits:

1. Behaviourism helped in replacing introspective measures with the scientific and objective measures.
2. It helped in revolutionizing all the programmes and methods related to education.
3. Behaviourism helped in extending the scope of educational psychology (animal).
4. Behaviourism gave rise to new ideas and innovations in the field of learning.
5. Behaviourism highlighted the role of motivation and definition of the aims and purposes in learning and shaping of behaviour.
6. Behaviourist gives the techniques of shaping behaviour and behaviour modification programmes.

PSYCHOANALYSIS

Psychoanalysis as a system or school of psychology was developed by Sigmund Freud. Freud, the father of this movement presented a new dimension in the field of psychology. The influence of psychoanalysis in terms of the totality of human behaviour including the conscious, sub conscious, and unconscious behaviour, the structure of the psyche, the concept of Expression, catharsis in the form of revealing the unconscious, the psycho-sexual development and giving sex its rightful place.

Psycho analysis theory involves following concepts

- Structure of the psyche or mind
- Life and death instincts
- Infantile sexuality and psycho-sexual development
- The flow of Libido

- Merits:
1. It has given a good method for the study of behaviour.
 2. It has provided a good therapy for the treatment of mental illness and abnormal behaviour.
 3. Freud's concept of the unconscious has helped in the cause of maladaptive behaviour.
 4. It has highlighted the importance of good education and a healthy environment in the early years.
 5. Its emphasis on the role of sex in one's life has brought out the necessity of providing proper sex education to children.

6. Freud's system of psycho-analysis has called for the provision of proper extra-curricular activities and suitable hobbies etc.

HUMANISM

Abraham Maslow, Carl Roger, Rollo May, Arthur Combs, Gordon Allport were the founder of this school of Humanism. The humanistic viewpoints reject the concepts of man as a mechanism controlled by external stimuli or by unconscious instincts. It emphasizes that each individual has great freedom as well as the ability to direct his or her future. He has the capacity for achieving personal growth, a considerable amount of intrinsic worth and enormous potential for self-fulfilment. Humanists prefer to see man as an actor capable of controlling his destiny and changing the world around him. This approach emphasizes every human being has a basic need to develop his potential to the fullest, to progress beyond what he is now. Humanists accept the man as a bio-social organism. They consider him as a purposeful being capable of adapting himself to his environment and choosing his course of action to achieve goals which he has selected for himself. Humanist psychologists emphasize man's search for unique goals and values that guide his behaviour.

CONSTRUCTIVISM

Constructivism as a perspective in education, explains how knowledge is constructed in the human being when information comes into contact with his/ her existing knowledge that had been developed by personal experiences. The learner processes every information he receives, based on his personal experiences and assimilates it as new knowledge by fitting it with his existing cognitive structure, as a result of which the cognitive structure gets modified.

Putting it in other words, learning is nothing but constructing one's knowledge. Knowledge is not viewed as some sort of a true copy of features of the world outside but the construction of the individual.

Methods of Psychology

Educational psychology employs various methods to improve the teaching-learning process in the classroom. It uses methods to gather facts about the nature of children, how they learn and develop. It helps to know personality social adjustment and learning behaviour of the children.

An important method for collecting data are,

1. Introspection
2. Observation
3. Case study
4. Experimental
5. Interview

6. Survey method

INTROSPECTION

Introspection is composed of two words intro and aspection. Intro means within and aspection means looking. Introspection means self-observation. It is a process of examining one's mental process of thought, feeling and motives. An individual looks within, observes, analyses and reports his feelings. Introspection is the oldest method which was formally used by philosophers. This method was developed by structuralist.

Merits

1. It is the cheapest and most economical method.
2. This method can be used at any time and everywhere.
3. It is the easiest method and readily available to the individual.
4. It is the only method with the help of which an individual can grow his emotions and feelings.

Demerits:

1. The data collected by introspecting cannot be verified.
2. Introspection cannot be done by children.
3. Introspection cannot be done by abnormal human beings.
4. Introspection can be done by highly trained and skilled workers.

OBSERVATION

Observation implies observing the behaviour of others. Observation deals with the overt behaviour of persons in appropriate situations. Observation has been defined as measurement without an instrument. In education, observation is the most commonly employed of all measurement techniques. In the present as well as in the past, students have been labelled as good, fair or poor in achievement and lazy in study etc. based on observation.

Suggestions and principles to be followed in making a reliable observation.

1. The whole situation should be observed.
2. One student should be selected to observe at a time.
3. Students should be observed in their regular activities such as in the classroom and on the playground.
4. Observation should be made over days.

Requisites of Good observation.

1. Proper planning
2. Proper Execution
3. Proper recording
4. Proper interpretations.

Devices used in observation

1. Check list
2. Rating Scale
3. Score Cards
4. The blank form for tallying frequencies

Types of Observation

1. Participant / Non participant
2. Structural / Unstructural
3. Direct / Indirect
4. Natural / Artificial

Merits of observation

1. It is the record of the actual behaviour of the child.
2. It is a study of an individual in a natural situation.
3. This method can be used with children of all ages.
4. It can be used with little training.
5. It can be used in every situation, physical activities, work shop, classroom
6. It is adoptable both to the individual and groups.
7. It is an economic method in terms of time money and labour.

Limitations

1. In this method, there is a great scope for personal prejudices and bias of the observers.
2. It can only be used for collecting data about overt behaviour.
3. Records may not be written with a hundred per cent accuracy as the observation is recorded after the action.

4. It is very difficult to observe everything that a student does or says. Survey Method

It is a research method in which information is collected from a large number of people or its representative sample to derive the desired specific information for the realization of the objective of the study. In the survey, information is collected by.

Use of questionnaire

Use of Interview

Merits

1. It is a popular method used in social science and an economical method.
2. It is an easiest and economical method.

Demerits

1. This method is not reliable and valid.
2. There is the possibility of manipulation of data by the surveyor.

EXPERIMENTAL METHOD

The experimental method is generally regarded as the most sophisticated research method for testing hypothesis. The experiment consists of objective observations of actions performed under a rigidly controlled environment. The purpose of the experiment in psychology is to understand the casual factors of the problem. It implies controlled observation involving the planned manipulation of variables. In an experimental study of behaviour, we want to study the effect of intelligence on academic achievement. In this study, we need to discover the causative relation between two phenomena (variables) intelligence and academic achievement. One of these variables the effect of which we want to study will be called an independent variable or. Independent variable is the variable that is manipulated in an experiment. The dependent variable is the variable that is being studied in an experiment Independent variable stands for the cause and dependent variable is characterised as the effect of that cause. The other conditions like study habits, sex, socio-economic condition, present education, home environment, health, past learning, a memory which exercise desirable impact upon one's achievement besides his intelligence are termed as intervening variables.

In psychology, experiments are conducted in the laboratory setup and outside the laboratory.

Experiments outside the laboratory set up.

1. The control test or single group design.
2. Control group design.
3. Multiple group design.

4. Rotation group design.

1. The control test or single group design

Here a single individual or group of an individual can work as the subject for the experiment. The subject is first objectively observed under normal conditions and then under different sets of changed conditions.

2. Control group design

In the control group design two separate groups known as the experimental group and the control group, participate in the experiment.

3. Multiple group design

More than two groups involved in this experiment.

4. Rotation group design

Two groups, we may obtain half the measures for condition A and other half measures for condition B.

Merits

1. It is reliable and systematic.
2. In this method, if we have doubts, the experiments can be repeated.
3. The findings can be verified directly.
4. Psychological experiments are always conducted on living organisms.
5. The key factor in this method is the controlling of conditions or variables.
6. This method provides adequate and objective information about the problem.
7. It provides an innovative idea for further experimentation.

Demerits

1. It is time-consuming and costly.
2. This method needs specialized knowledge.
3. It is not possible to manipulate human beings according to research design.
4. Psychological methods are conducted on animals like cats and dogs. This raises issue, how far is it justifiable to generalize these principles and laws on human beings.
5. Experiments are conducted in the artificially determined pattern of behaviour. In a real-life situation is quite different.

CASE STUDY

Meaning:

It is an intensive analysis of many important aspects of the person. Generally, the case studies deal with problem students.

The main objective of a case study is to study an individual (or) group of individuals to detect and diagnose their specific problem and suggest remedial measures. The complete and detailed study of a case may involve the use of observation, interview, use of medical records, various tests like intelligence, aptitude, interest and personality test.

A case study is also known as a case history of the individual because it is the analysis of the most important aspects of the child. The analysis is in the form of record, present position and future possibilities. A case study is essentially more than an expanded cumulative record. It contains interpretations, recommendations and reports in follow up work.

The study of 'Rodney' and 'Roeng' revealed that there was a need for preparing case histories of

1. Children of exceptionally high achievement.
2. Children who show exceptionally high ability in art.
3. Children who show exceptional skill in practical art or painting.
4. Children who are persistent in striving for success.
5. Children who are trying very hard against great obstacles.
6. Children who show exceptionally high ability in music.
7. Children who constantly present behaviour problem in the class.
8. Children who do not seem to be able to do the work of the class.
9. Children whose behaviour makes them appear to be a model.

Initially, a case study was limited to problems of mal adjustment such as truancy, failure in schools, or absenteeism etc. However recently this approach has been extended to the investigation of normal or bright children and successful institutions. The finding of such cases forms the basis for guidance in preventing the case of maladjustment. So a case study is a form of quantitative analysis involving careful and complete observation of a person.

Importance of case study:

A good case study serves several purposes

1. It is used for diagnosis and treatment of special problems.
2. The teacher can develop a systematic and full understanding of the individual in his total functioning.

3. It provides an adequate picture of the subject in counselling service. So that the counsellor can help the subject for better adjustment.

Characteristics of a Good case study:

1. It should be based on adequate material collected through various sources.
2. Data thus collected should be valid and reliable.
3. Data should be continuous.
4. It must be kept confidential.
5. There must be follow up for every case study.

Limitations of Case study:

- The information provided by the individual is highly subjective and cannot be fully verified.
- While performing the case, the complex behaviour of the individual is being observed. There is a chance that some striking features will go unnoticed affecting the study.
- When there is a lapse of time between observation and interpretation, then the interpretation is affected.
- The procedure is largely intuitive and impressionistic, the study will be influenced by the impressions of the observer.
- Due to lack of experience and failure to observe significant things, the validity of the case will be affected.

Steps involved in a case study

1. Identification of the problem

The first step is to identify the unit to be taken up for the case study.

For example, a problem student like the one who consistently scores poor marks in examination abstain from the school too often indulges in violence, show disobedience to all teaches (or) goes on talking in the class (or) a poorly performing

For Example, in the present illustration measures like

1. Referring the student to psychological counselling
2. Discussing with a parent to enlist their cooperation.
3. Arranging leisure time activities.
4. Providing training in some handicraft.
5. Making available financial assistance for schooling.

6. Making him read books to develop self-confidence etc. Could be undertaken simultaneously.

Follow up

This is the last step in a case. The phenomenon under study (violent behaviour) is continuously monitored to ascertain whether the remedial measures administered here really produced, significantly favourable changes. Sometimes small adjustment maybe needed in the remedial measures undertaken. To enhance the effect produced. If the obtained results are positive and quite significant in amount, then the diagnosis and quite significant in amount, then the diagnosis and remedial measures suggested are taken to be correct and continued beyond the trial period of three months.

Muslim College of Education

ADVANCED EDUCATIONAL PSYCHOLOGY

UNIT 2

MOTIVATION AND SELF REGULATION

Motivation- Meaning

Motivation has defined the level of desire you have to do something. Motivation is very important it allows us to change behaviour, develop competencies, be creative, set goals, grow interests, make plans, develop talents, and boost engagement. The motivation process progresses through a series of discrete steps. Need/motives are the starting point of motivation. An unsatisfied need creates tension that stimulates drives within the individual. The action taken by the individual will lead to the reward/ goal which satisfies the need and reduces tension.

Process of motivation

The learning environment centres on the learners a need or desire. The desire may be associated with a biological or social deficiency or it may be associated with self-growth. The arousal of need, if so urgent, the bearer has to venture in search of it to satisfy it. This leads to the creation of tension, which urges the person to forget everything else and cater to the aroused need first. This tension also creates drives and attitudes regarding the type of satisfaction that is desired. This leads a person to venture into the search for information. This ultimately leads to the evaluation of alternative is chosen. After choosing the alternative, an action is taken. Because of the performance of the activity satisfaction is achieved which then relieves the tension in the individual.

Kinds of Motivation

Motivation requires a goal that once established does not last if not repeated. Motivation requires recognition. Participation and group belonging have a motivating effect. Seeing ourselves progressing motivates us. Challenge only motivates if you can win. Everybody has a motivated fuse i.e. everybody can be motivated. Psychological have identified different types of motivations based on the underlying goals. Some of these are discussed below:

Extrinsic motivation

When strategies focus to induce motivation for extracting certain efforts by the offer of external rewards such as verbal or written compliments or prizes or punishments then it is external motivation. The classroom disciplinary norms and school regulation, progress reports are some of the common extrinsic motivation techniques used in the learning environment.

Intrinsic motivation

In this type, our motivational strategies are aimed at internal factors, as opposed to the external drives of extrinsic drivers of extrinsic motivation. Intrinsic motivation drives one to do

things just for the fun of it, or because according to them it is a good or right thing to do. Intrinsic motivation is far stronger a motivator than extrinsic motivation, yet external motivation can easily act to displace intrinsic motivation. For example, most people's hobbies are intrinsically motivated. Notice the passion with which people collect little bits of china or build detailed model ships. Few people carry that amount of passion into their learning efforts. Some effective intrinsic motivational techniques are

- Teacher's attitude of honouring individual difference among learners.
- Modifications of teaching methods to the teachings/ learning context.
- Effective lesson plan design and lucid presentation style.
- Effective linking of the lesson with the occupational goals of the learners.
- Provision of guidance and counselling service.

The biological or primary motive

Biological motives are unlearned and physiologically based. These arouse the behaviour of the organism in directions that lead to the required change in the internal environment.

The hunger drives motivate the organism to seek and digest food which is necessary to maintain metabolism. Prolonged failure to satisfy certain of the biological drives results ultimately in impaired health, disease or even death.

Drives are related to our needs for foods, water, oxygen, rest and sleep. Following are some of the biological drives.

Hunger drive

When the stomach contracts, the hunger drive is initiated. Hunger is consciously felt by the contraction of the stomach but these contractions are only a manifestation of the biological need.

Thirst drive

Drinking is mainly triggered by a dry mouth. This need is felt consciously and is controlled by the hypothalamus and then we have a conscious urge to drink water.

Sex drive

The sex drive is considered to be a biological nature. It is not a response to a lack of some substance in the body and arises from an excess of substance like hormones in the blood.

Pain drive

Pain is avoiding pain motive when we touch a hot iron, we immediately withdraw our hand. This response is known withdrawal reflex. Here pain is serving as a drive. In seeking to avoid pain we also tend to avoid being injured the drive to avoid pain has been an important motivating force.

Air, hunger

Oxygen is the most requirement in the human body. We inhale air to fill up our lungs with oxygen and distribute it to every part of the body arteries.

Fatigue and need for sleep

Sociogenic motives

As a human, we tend to expect certain factors in our day to day living. They are the result of the social effects.

1. Power

We do expect to have power in society. Political people do have this motive to a greater extent than a normal human being.

2. Achievements

Researchers have been searching for the common characteristics of the achievers. They are found to be moderate risk-takers. They have satisfaction with accomplishment and pre-occupation with the task.

3. Status

The relative ranking that a person holds in a group. All these motives are inborn factors and intensively varies from person to person.

Level of Aspiration

Level of aspiration refers to where how far individual set their targets for achievements. It is a complex phenomenon and is determined largely by our past failures and success, perceptions about our ability and some elements of involvement of our ego and self. In setting our level of aspiration whether it is high or low, what we attribute our failure or success to become a very important consideration. The failure or success may be attributed to ability, effort, mood, luck, knowledge, unfairness, the interest of others etc.

Factors affecting Level of aspiration

1. Nature of the task and the general expectations of what constitute success and failure in its performance influence the level of aspiration an individual sets himself.
2. The cultural pressures from the home influence the child's aspiration level.
3. Parental anxieties can have ill effects on children's aspiration level.
4. The improvised environment often fails to develop goals as an aspiration in harmony with their potential. The teachers should be careful in evaluating or criticizing their work lest they come to feel they can't do the task.
5. Continuous failure in academic tasks may lead to a level of aspiration, while the expectation of failure in future performances will have a detrimental effect.

6. For the tasks which appear so complex or difficult to reach there is no reason to set a goal or hope to succeed at it may lower the aspiration level for attempting it. On the other hand, the tasks that are so easy may also fail to raise the aspiration level for attempting the task.
7. The sense of insecurity prompts certain children to set themselves high goals to attain a telling success, even though they realize they will be unable to attain them.
8. Lack of support to face and build on the failure also affects the aspiration level.
9. The model behaviour of teachers, parents and any other significant adult also can change the aspiration level of children.
10. The influence of peer on the level of aspiration is also significant. Most children will tend to set themselves goals not too far from those set by other members of their group.

Factors affecting the level of aspiration

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4. The improvised environment often fails to develop goals as an aspiration is in harmony with their potential. The teachers should be careful in evaluating or criticizing their work less they come to feel they can't do the task.
5. Continuous failure in the academic task may lead to a level of aspiration lower than is needed for a realistic approach.
6. Expectations of further success will have a beneficial effect on the level of aspiration, while the expectation of failure in future performances will have a detrimental effect.
7. For the task which appears so complex or difficult to reach there is no reason to set a goal or hope to succeed as it may lower the aspiration level of attempting it.
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Zeigarnik Effect

It is one of the phenomena closely associated with the level of aspiration. Russian psychologist Blyuma Zeigarnik was the founder of this phenomenon. He observed people in all sorts of situations could remember incomplete tasks much more readily than completed ones.

This is known as Zeigarnik effect after her name. The effect occurs because we experience intrusive thoughts about an object that was once pursued (follow) and left incomplete. The automatic nervous system signals the conscious mind, which may be focused on new goals, the previous activity was left incomplete. It was human nature to finish what was the start and, if it is not finished, we experience dissonance.

A study done by Greist-Bousquet and Schiffman (1992) provided evidence for the Zeigarnik Effect. Their study led to the finding, there is a tendency or “need” to complete a task once it has been initiated and the lack of closure that stems from an unfinished task promotes some continued task-related cognitive effort. The cognitive effort that comes with these intrusive thoughts of the unfinished task is terminated only once the person returns to complete the task.

Vroom's Valence Expectancy Theory

Vroom's assumes that behaviour results from conscious choices among alternatives whose purpose is to maximize pleasure and minimize pain. Edward Lawler, Lyman Porter and Victor Vroom suggested that the relationship between people's behaviour at work and their goals are not similar in all situations. Vroom realized that an employee's performance is based on individual's factors such as personality, skills, knowledge, experience and abilities.

This theory suggests that although individuals may have a different set of goals that can be motivated if they believe that

1. There is a positive correlation between efforts and performance.
2. The favourable performance will result in a desirable reward.
3. The reward will satisfy an important need.
4. The desire to satisfy the need is strong enough to make the effort worthwhile.

The theory is based upon the following beliefs

Valence

Valence refers to the emotional orientations people hold concerning outcomes (reward). The depth of the want of an employee for extrinsic (money, promotion, time-off, benefits) or intrinsic (satisfaction) rewards. Management must discover what employee value.

Expectancy

Employees have different expectations and level of confidence about what they are capable of doing. Management must discover what resources, training or supervision employees need.

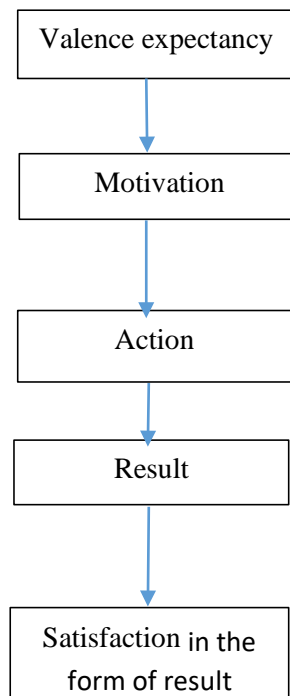
Instrumentality

The perception of employees as to whether they will get what they desire even if it has been promised by a manager. Management must ensure that promises of rewards and fulfil and that employee is aware of that.

Vroom suggests that an employee's beliefs about Expectancy, Instrumentality, and valence interact psychologically to create a motivational force such that the employee acts in ways that bring pleasure and avoid pain.

MOTIVATION

VALENCE	EXPECTANCY	INTRUMENTALITY
Measures the value a person attaches to a given reward. These can be extrinsic (such as money, promotion or time-off) or intrinsic (such as a sense of achievement).	Measures the person's confidence in being able to get the results expected. It is a purely subjective measure of an individual's belief in themselves.	Measures the extent to which an individual believes that the manager/organisation will deliver the rewards that were promised.



Abraham Maslow's Theory of Motivation

Abraham Maslow's theory of motivation identifies different stages and forms of motives that people in different stages of their lives. According to Maslow, human behaviour is directed by five basic needs which activate in an order of hierarchy. They are the physiological needs, safety, belongingness and love, esteem and self-actualisation need. As these needs operate following the order of hierarchy Maslow called them instinctive. The aspiration for a higher need arises only after the lower needs are satisfied to a certain extent. The degree of activation of these needs is influenced by learning and social expectations. At one particular point in time, we are not driven by all the needs and by only one need, which, depends on which of the lower needs are satisfied before the need in question. For example, a poor hungry, unsophisticated man will be stuck with the efforts to satisfy the physiological need, whereas a successful man in the society will be motivated by self-esteem and self-actualisation.

This theory also presents relationships between these needs. These needs are presented in a hierarchy. The higher-level needs will be activated when the lower needs are satisfied according to Maslow's hierarchy of needs. These are the needs that are most commonly discussed and used Maslow later added three more needs by splitting two of the above five needs i.e. the esteems and self-actualization needs. They are (1) the need to know and understanding- which explains the cognitive need for academic ventures, (2) the needs for aesthetic beauty- which refers to the emotional needs of appreciation, expression of work of arts, and (3) the need for self-actualization also is achieved through transcendence, which is helping others to achieve their potential.

Educational implications of Maslow's Need Hierarchy

Physiological need:

The lowest level of need for anyone is known as physiological needs. This represents the requirements for food, shelter, water etc. certainly anyone cannot exist without fulfilling these primary requirements. When people have requirements that fall into this category they are motivated for that. For example, if someone is in hunger he will be motivated only to seek food and nothing else.

Safety needs:

After people satisfy their need for these basics for existence in life, they can no longer be motivated by them. Such people can be motivated to strive for the next level of safety. This is people will be motivated for consistency-safety. For example, when children in the class can get food and shelter and other basic needs they will look for a sense of security. Maslow explains this as the safety need. These rules, regulation, and the reputation of the school in society will instil a sense of security in the children.

Belongingness need

When children feel secure and their basics are sorted out they want to be in groups and they start developing their need for affiliation. Here they will be motivated with entering into a good relationship with their classmates, show interest in extracurricular activities, take part in games and sports with ease.

Esteem need

According to Abraham Maslow, it is the general tendency of the people to seek respect once the first three needs are satisfied. This may be why people seek respect once the first three needs are satisfied. This is maybe why people go for politics and social services after they have achieved things they want to achieve personally. This is known as the esteem needs of people. Schools curriculum should provide an opportunity for pupils to enjoy self-esteem; the grading system, the positive reinforcement techniques followed in the classroom, varied club activities, competitions etc., are some opportunities which may satisfy the esteem need of the children in the school.

Self-actualisation needs

Everyone has a dream in their life. This is the ultimate expectation of the people. This will be highly subjective and will be different from person to person. This will b motivate the learner when they achieve the esteem need. This is called self-actualisation need.

This theory gives good guidelines to education. Students will not be motivated for lower-level needs if they have fulfilled them. Then they should be motivated with other higher-level needs.

McClelland's achievement motivation theory

This theory explains three important aspects, namely, achievement, power and affiliation. This theory was developed in the 1960s and McClelland points out that regardless of our age, sex, race or culture, all of us possess one of these needs and are driven by it. This theory is also known as the acquired needs as McClelland put forth that the specific needs of an individual are acquired and shaped over time through the experiences he has had in life. McClelland told every individual has three types of needs irrespective of their demography, culture or wealth. These motivation types are driven by real-life experiences.

Need for achievement

The need for achievement as the name itself suggests is the urge to achieve something that you do. If you are a lawyer it is the need to win cases and be recognized, if you are a painter it is a need to paint a famous painting. It is the need that drives a person to work and even struggle for the objective that he wants to achieve. People who possess high achievement needs are people who always work to excel by particularly avoiding low reward low-risk situations and difficult to achieve high-risk situations.

The individuals motivated by needs for achievement usually have a strong desire of setting up difficult objectives and accomplishing them.

Need for Power

The need for power is the desire within a person to hold control and authority over another person and influence and change their decision by his own needs or desires. These people are strong leaders and can be best suited to leading positions. They either belong to personal or institutional power motivator groups. If they are personal power motivator they would have control of others and an institutional power he seeks to lead and coordinate a team towards an end. They are self –disciplined and expect the same from their peers and teams.

Need for Affiliation

The need for affiliation is the urge of a person to have interpersonal and social relationships with others or a particular set of people. They seek to work in groups by creating friendly and lasting relationships and has the urge to be liked by others. They like spending their time socializing and maintaining relationships and possess a strong desire to be loved and accepted. People in this group tend to adhere to the norms of the culture in that workplace and typically do not change the norms of the culture in that workplace for fear of rejection

Application of this theory

1. The teacher should be capable of identifying the needs of the individuals.
2. The teacher should motivate individuals according to their needs

Self-Regulation

Self-Regulation is the ability to monitor and manage your energy states, emotions, thoughts, and behaviours in ways that are acceptable and produce positive results such as well-being, loving, relationships, and learning. It is how we deal with stressors and as such, lays the foundation for all other activity. The four components of self-regulation are standards of desirable behaviour, motivation to meet standards, monitoring of situations and thoughts that proceed breaking standards and will power or the internal strength to control urges.

Importance of self-Regulation

It is very important, how to manage our emotions and impulses. It is useful to resist highly emotional reactions to upsetting stimuli, to calm yourself, not down when you get upset, to adjust to a change in expectations and to handle frustration without an outburst. It is the skill that enables children, as they mature, to direct their behaviour towards a goal, despite the unpredictability of the world and our feelings. It enables you may remain calm in challenging situations and respond more effectively. It is helpful to focus on the end goal and the fact that solving conflicts lead a successful life.

Strategies to develop self-regulation skills

1. People who live and work with integrity.
2. Being open to change (People who self-regulate cope well with change, and adapt behaviour to different situations easily.)
3. Identifying your triggers. (Self- awareness, particularly when you comes to know what your weakness are, and how other people's behaviour can affect you negatively.)
4. Practising Self-Discipline.
5. Reframing negative thoughts. (Use affirmations and visualization to manage your negative thoughts and control how to react to similar situations.)
6. Keep calm under pressure. (Use relaxation techniques such as deep breathing)
7. Considering the consequences. (Try to control your impulses thing before you act)
8. Believing in yourself. (Positive energy, self-confidence, focus on the experiences in your life to achieve your goal.)

Components of self-regulation

Baumeister described four components of self-regulation. They are

1. Standards of desirable behaviour
2. Motivation to meet the standard.
3. Monitoring of situations and thoughts that proceed breaking standards.
4. Willpower internal strength to control urges.

Factors affecting self-regulation

1. Family can play a supportive and supervisory role in self-regulation.
2. Peers, students expressed both facilitating And inhibiting influences from peers on self-regulation.
3. Instructors can greatly affect their self-regulation of the students.
4. Educational environment the atmosphere and conditions of the educational environment, educational planning, support services and educational content can work as facilitating or inhibiting factor for self-regulation.
5. Student, participants considered the personal characteristics of the students to be a factor affecting self-regulation.

Internal factors of self-regulation

1. Self-observation; we regulate our behaviour by monitoring our performances and adjusting our behaviour.
 - a. In mastery situations, we pay attention to quality, quantity, speed and originality.
 - b. In interpersonal situations, we pay more attention to sociability and morality of behaviour.
2. Judgmental process; a subjective evaluation of the consequences of our behaviour.
 - a. Personal standards, evaluate our performance without comparing it to others.
 - b. Standards of reference, comparing our performance to the performance of others.

ADVANCED EDUCATIONAL PSYCHOLOGY

By S. INDIRA

UNIT-3

INTELLIGENCE

Intelligence refers to an individual's ability to deal with facts and situations. Intelligence is the individual's aggregate or global capacity to act purposefully, reason rationally, and deal effectively with their environment.

JEAN PIAGET

Intelligence is the capacity for adaptation to one's environment. Intelligence is the capacity of an individual to respond to his or her environment. Intelligence is a capability that encompasses a variety of abilities such as adjustment, learning, abstract thinking, and comprehension.

NATURE OF INTELLIGENCE

People do well academically or succeed at intellectual tasks, we consider them to be intelligent. Intelligence is a person's ability to learn and remember information and recognize concepts and their relations and apply the information and recognition by behaving adaptively.

Intelligence is

1. **Ability to adjust-** Ability of an individual to direct his behavior towards a goal.
2. **Ability to learn-** Intelligence is the learning ability.
3. **Ability to do abstract reasoning-** An individual is intelligent in proportion as he can carry on abstract thinking.

Characteristics of the intelligent person

1. Learns fast and with ease
2. A good adjustment in behavior and capacity to solve problems.
3. He is capable of completing difficult and complex tasks with high efficiency.
4. He perceives the appropriate solutions exist among objects or ideas.
5. He generally acts in pursuit of the welfare of society.

The Concept of Mental Age

Binet conceived the idea of mental age to measure intelligence. Tests were made for different age levels. (If a test was passed by 60-70% of children of a given age, Binet accepted it for the age level). A child who successfully performs all the tasks thus accepted for the five years old. A child is taken to have a mental age of five; whatever his chronological age may be. If he is five years old chronologically to he is rated as normal or average. A seven-year-old child having a M.A of six is considered mentally deficient, but if he has an M, A of eight then he is an aid to be above average in intelligence.

Intelligence Quotient (I, Q)

Intelligence Quotient is an index of intelligence. It is a comparative index showing how a particular child performs when compared with others of the same chronological age. It is computed as a ratio between Mental age and chronological age

$$IQ = \frac{MA}{CA} \times 100$$

To avoid fractions we multiply the result by 100.

IQ value 100 refers to normal intelligence values above 100 indicate high intelligence and value below 100 refers to low level of intelligence.

Classification of intelligence

I.Q	40	1 above Genius
	0 – 139	Very superior
	0 – 119	Superior
	– 109	Average
	– 89	Below
	-79	Border line
	low 70	Mildly minded
	– 59	Borderline
	– 49	Deficient

Classification of intelligence tests

Intelligence tests are of various kinds. They have been classified from different points of view.

1. Classification based on the number that takes the test at a time.

Based on the mode administration intelligence tests have been divided into two classes

Individual tests

These tests are administered to one individual at a time. They include performance tests as well as tests that require linguistic ability. These tests are particularly appropriate for testing individuals, but they are not financially feasible as they are expensive. The intelligence test is time-consuming, Administration of such tests requires more expert training. Example Stanford Binet intelligence test, Wechsler Bellrnre Intelligence Test, Koh's Block Design test, etc.,

Group test

In this category, the tests are administered to a large number of examinees simultaneously. Group tests are more objective and less expensive. But in these tests no rapport between the subjects and examines. These tests are more useful for educational and vocational guidance.

Eg., Army Alpha Test, Army Beta Test.

2. Classification based on the medium used

In terms of the medium used, intelligence tests are divided into two categories

1. Verbal tests:-

In this questions are asked in oral or in written form of a given language. It cannot be used for testing individuals who lack language ability and small children. It is less expensive, standardization, administration, and scoring are easy.

2. Nonverbal test: -

These tests do not require the use of language but could be manipulated using figures, pictures, blocks, or even other objects. It is more expensive. These tests can be used for testing subjects who lack language ability.

GARDNER'S THEORY OF MULTIPLE INTELLIGENCE

Howard Gardner has questioned the idea that intelligence is a single entity, that it emerges from a single general ability, and that it can be measured by IQ tests. He viewed

intelligence as the capacity to solve problems or to fashion products that are valued in one or more cultural settings. When Gardner introduced the theory in his book “Frames of Mind” (1983), he suggested that each individual possesses at least seven such relatively independent mental abilities or intelligence. The first two are the ones that have been typically valued in schools; the next three are usually associated with arts, and the final two are what Howard Gardner called ‘personal intelligence’.

1. Visual/ Spatial Intelligence is the ability to perceive the visual. Learners who possess this at a higher level tend to think in terms of pictures, they can create a vivid mental image to retain information. They enjoy closely observing maps, charts, pictures, videos, and movies.

Their skills include:

Puzzle building, studying charts and graphs, a good sense of direction, sketching, painting, creating visual metaphors and analogies (perhaps through visual arts), manipulating images, constructing, fixing, designing practically useful objects, interpreting visual images.

Possible career interests;

Persons with high spatial intelligence will make efficient navigators, sculptors, visual artists, inventors, architects, interior designers, mechanics, and engineers.

2. Verbal/Linguistic Intelligence is the ability to use words and language. Learners who are high in this have highly developed auditory skills and are generally elegant speakers. They think in words rather than pictures.

Their skills include:

Listening, speaking, writing, storytelling, explaining, teaching, using humor, understanding the syntax and meaning of words, remembering information convincing someone of their point of view, analyzing language usage, flow, and fluency of words, using appropriate words, etc.

Possible career interests:

Poet, journalist, writer, teacher, lawyer, politician, translator.

3. Logical/Mathematical Intelligence is the ability to use reason, logic, and numbers. Learners who are high in this think conceptually in logical and numerical patterns making connections between pieces of information. Always curious about the world around them, these learners ask lots of questions and like to do experiments.

Their skills include:

Problems solving, classifying and categorizing information, working with abstract concepts to figure out the relationship of each to the other, handling long chains of reason, doing controlled experiments, exploring and wondering about natural events, performing complex mathematical calculations, working with geometric shapes, interpreting and appreciating numbers patterns and combination, etc.

Possible career paths:

Scientists, engineers, computer programmers, researchers, accountants, mathematicians

4. Bodily/Kinesthetic Intelligence is the ability to control body movements and handle objects skillfully. Learners who are high in this express themselves through movement. They have a good sense of balance and eye-hand coordination, (e.g. ball play, balancing beams). Through interacting with the space around them, they can remember and process information.

Their skills include:

Dancing, physical coordination, sports, hands-on experimentation, using body language, crafts, acting, miming, using hands to create or build, expressing emotions through the body, smooth and rhythmic movements.

Possible career paths:

Athletes, physical education teachers, dancers, actors, firefighters, artisans, circus artists.

5. Musical/Rhythmic Intelligence is the ability to produce and appreciate music.

These musically inclined learners 'think' in terms of sound, rhythms, and patterns. They spontaneously respond to music either by appreciating or criticizing what they hear. Many of these learners are extremely sensitive to environmental sounds (e.g. sounds produced by crickets, bells, dripping taps).

Their skills include:

Singing, whistling, playing musical instruments, recognizing tonal patterns, composing music, remembering melodies, understanding the structure and rhythm of music, modulating voice in tune with emotions.

Possible career paths:

Musicians, singer, composer

6. International Intelligence is the ability to understand others, interact with them and establish pleasant relations. Such learners try to see things from other people's points of view to

understand how they think and feel. They often have an uncanny ability to sense the feelings, intentions, and motivation of others and can empathize with others. They will be great organizers, although they sometimes resort to manipulation. Generally, they try to maintain peace in group settings and encourage co-operations. They use both verbal

(e.g. speaking) and non-verbal language

(e.g. eye contact, body language) to open communication channels with others.

Their skills include:

Seeing things from another person's perspective (dual perspective), patient listening, empathizing, understanding other people's moods and people's motivations and intentions, communicating both verbally and non-verbally, building trust, arriving at peaceful resolution for conflicts; establishing positive relations with other people.

Possible career paths:

Counselor, salesperson, politician, business person, social worker, volunteer of social service organizations.

7. Intrapersonal Intelligence is the ability to self-respect and be aware of one's inner state of being. Learners having high interpersonal intelligence try to reflect upon their inner feelings, dreams, relationships with others, and strengths and weaknesses. Thus they will develop healthy self-concepts.

Their skills include:

Recognizing their strengths and weakness, reflecting and analyzing themselves, acquiring awareness of their inner feelings, desires, and dreams, evaluating their thinking patterns, reasoning with themselves, understanding their role in relationship to others.

Possible Career Paths:

Researchers, theorists, philosophers, religious workers.

Later, Gardner has added an eighth intelligence- **naturalist intelligence-** to his list of intelligence reframed (1999).

8. Naturalist Intelligence is the ability to recognize and categorize plants, animals, and other objects in nature. Farmers, gardeners, botanists, geologists, florists, and archeologists all exhibit this intelligence.

Their skills include:

Closely observing all the natural phenomena in the immediate environment and later in distant places; internalizing all the salient attributes of various natural phenomena; constructing mental images of natural phenomena; identifying various plants animals and other creatures by observing relevant attributes, classifying classes and categories; being able to describe the salient characteristics of natural phenomena- both external and internal.

Possible career path:

Agriculturist, Botanist, Gardner, Geologist, Archeologist, Organizer of nurseries for plants, pets, etc.

Sternberg's Triarchic Theory (Information Processing Theory of Intelligence)

The information processing approach is how one proceeds to perform a mental task or solve the problem from the time one comes across it, gathers information, and makes use of this information for completing the task or solving the problem at hand. Sternberg identified the following step one processes information.

1. Encoding
2. Inferring
3. Mapping
4. Application
5. Justification
6. Response

1. Encoding

Identifying the relevant available information in the mind,

2, Inference

Drawing the necessary inference

3. Mapping

Establishing the relationship between a previous situation and the present one.

4. Application

Applying the inferred relationship

5. Justification

Justifying the analyzed solution of the problem.

6. Response

Providing the best possible solution.

In this way human beings process information for executing a mental task.

Sternberg laid down a triarchic structure for his theory of intelligence.

a .Component sub = theory

b. Experiment sub- theory

c. Contextual sub-theory

a. Component sub-theory

He advocates that a person's intellectual functioning is decided mainly by three components. He listed three types of components serving a distinct function.

Meta component

Which represents higher-order executive processes employed for planning, monitoring, and regulation the execution of a task such as analysis of the problem, selection, monitoring possible solutions and interpretation of feedback about performance, etc.

Performance component

It represents the actual mental processes used for the execution of a task like task perception, concept identification and response making, etc.

Knowledge acquisition component

It represents the process used in acquiring new information such as synthesizing old ideas in some original and creative way.

b. Experimental sub theory

It represents the ability capacity of an individual to deal with new tasks, problems of situations by adopting an information processing approach with a little conscious effort as possible. This means that to assess the degree of intelligence of an individual. We must allow him to perform new tasks or face novel situations or problems.

c. Contextual sub theory

Intelligence is a mental activity directed toward purposive adaptation to and selection and shaping of real-world environments relevant to one's life. This declaration made out intelligence to be a factor of a practical nature rather than a mere abstraction. The real function and purpose of human intelligence by considering it as a proper instrument for adaptation and the selection and shaping of one's environment.

Cattell theory of intelligence

Cattell proposed a theory of intelligence by distinguishing between two types of intelligence intermingle and interact to produce overall intelligence.

Fluid intelligence is considered to be the mental capacity of an individual which is required for learning and problem-solving. It is dependent on neurological development and is relatively free from the influence of education and culture. It is derived more from biological and genetic factors and is less influenced by training and experience. This type of intelligence is put to use when facing new and strange situations requiring adaptation, comprehension, reasoning, problem-solving and identifying relationships, etc. It reaches full development by the end of an individual's adolescence.

Crystallized intelligence is not a function of one's neurological development. It is not innate or unlearned like fluid intelligence. It is especially learned and is therefore dependent on education and culture. It involves one's acquired a fondness of general information consisting of knowledge and skills essential for performing different tasks in one's day-to-day life. It can be identified through one's fondness of vocabulary, general knowledge of world affairs, the knowledge of customs, traditions, and rituals. Manners of behaving in the society, handling machines and tools, craftsmanship and art of computations and keeping of account and various other such tasks require knowledge, experience, and practice.

Fluid intelligence is characterized by a relatively high degree of culture in education, experience, and training performance in abstraction, thinking, reasoning and imagination.

Crystallized intelligence is characterized by its evolution through experience training and interaction with one's environment over several years. That is why it is found to continue to increase throughout one's life span.

INTELLIGENCE THEORY PASS MODEL

Planning, attention, arousal and simultaneous successive (PASS) Model of intelligence. This model has been developed by J.P.Das, Jack Naglieri and Kirby (1994). According to this, the intellectual activity involves the independent functioning of three neurological systems

called the functional units of the brain. These units are responsible for arousal, attention, coding, or processing and planning respectively.

Arousal/attention

The state of arousal is basic to any behavior as it helps us in attending to stimuli. Arousal and attention enable a person to process information, an optimal level of arousal focuses our attention on the relevant aspects of a problem. Too much or too little arousal would interfere with attention. For instance, when you are held by your teacher about a test which she plans to hold it would arouse you to attend to the specific chapters. Arousal forces you to focus your attention on reading, learning, and revising the content of the chapters.

Simultaneous and successive processing

You can integrate the information into your knowledge system either simultaneously or successively. Simultaneous processing helps you in grasping the meaning and relationship between the given abstract figures. Successive processing takes place when you remember all the information serially so that the recall of another. Learning digits, alphabets, multiplication tables, etc. are examples of successive processing.

Planning

This is an essential feature of intelligence. After the information is attended to and processed, planning is activated. It allows us to think of the possible courses of action, implement them to reach a target, and evaluate their effectiveness. If a plan does not work, it is modified to suit the requirements of the task or situation. For example, to take the test scheduled by your teacher, you would have to set goals, plan a scheduled study. Get classification in case of problems and if you are not able to tackle the chapters assigned for the test, you may have to think of another way (e.g.) give more time, study with a friend, etc. to meet your goals.

These pass processes operate on a knowledge base developed either formally by reading, writing, and experimenting or informally from the environment. These processes are interactive and dynamic. Yet each has its distinctive functions.

Creativity

Creativity is the capacity or ability of an individual to create, discover or produce a new or novel idea or object, including the rearrangement or reshaping into a new form of what is already known to him. Creativity may involve either all three or any of the three processes,

namely- (1) Explanation, (2) Prediction, and (3) Invention. These can be distinguished by the different goals behind each of them.

In explanation, the goal is to seek an understanding of why a specified event has occurred. In prediction, certain conditions are given and the goal is to understand the sequence of these conditions, to anticipate an event that has not happened. In the invention, the goal is to create a novel set of conditions that will result in the specified event.

Nature of Creativity

Creativity possesses the following characteristics:

1. **Creativity is universal:** Creativity is not confined to any individual, sex, or caste. It has no boundary of age, location, or culture. It is universal.
2. **Creativity is innate as well as acquired:** Creativity is not merely a hereditary factor. It can be nourished and nurtured by proper training.
3. **Creativity carries ego involvement:** No other person can experience the same warmth, happiness, and satisfaction of the creation as the creator. One's individuality and identity are merged in one's creation.
4. **Creativity rests more on divergent thinking:** Creativity is the result of adventurous thinking and a departure from closed thinking.
5. **Creativity is not completely spontaneous:** Creativity requires constant understanding, hard work, and patience to produce something new and unique.

Stages in the creative process

The creative process involves four distinct stages. They are preparation, incubation, illumination, and verification.

1. Preparation:

During the preparatory period, the attention of the creative individual is finding a problem and solving it. At this stage the creative person studies, analyses, learns and tries to relate the findings in many ways. He analyses the problem, incisively collects and matches the data and tries to create novel ideas which are relevant to the problem and solve it.

2. Incubation:

At this stage, no deliberate activity is done or proposed by the individual. During the period one is taking rest and relaxed and his mind wanders freely. Unconscious activities can also arise during this period, but they can be altered and reorganized during this time.

3. Illumination:

Illumination means giving light. A sudden flash of insight and judgment occur during this period. Sudden ideas occur at any time in the individual's mind. Ideas also occur after having enough experience. Example: Archimedes discovery.

4. Verification:

At last, the creative individual compares the tests and evaluates his ideas, products, or results. He submits his critical appraisal. Verification may lead to further preparation and contemplation and finally lead to another inspiration to create a better new creation. The four stages represent a scientific and systematic way of analyzing the ideas for a higher creative process.

Fostering creativity among children

1. **Brainstorming:** In this technique, the individual is free to express his ideas continuously without inhibition. In this method greater chance for delivering original ideas of the person or developing creativity and new interventions.
2. Develop healthy study habits and self-learning among students
3. The curiosity of the students should be respected by the teacher and satisfied by giving affection.
4. The curriculum should organize to develop creativity among children.
5. The teacher allowed the students to solve the problem in their way.
6. The examination should be conducted on the students to develop creative thinking among students.
7. The teacher should respect the imaginative ideas, unusual questions and creative works of the students.

Problem-solving

Problem-solving is the planned procedure to face obstacles in our life to achieve the goals or how we adjust in our environment. Problem-solving is a process of overcoming difficulties that appear to interfere with the attainment of a goal.

Steps involved in problem-solving

1. Define the problem
2. Collecting possible solutions
3. Decide on a solution
4. Implement the solutions
5. Review the results

1. Identify the problem

Identify the situation, Timing, circumstances, etc. Getting clear on what the problem is, establishes a goal for what you want to achieve

2. Collect possible solutions

The goal is to create a list of possible solutions to choose from. The harder the problem, the more solutions you may need.

3. Decide solutions

Check the solution is effective to achieve the goals, or pick lists of solutions and decide what solution you will implement.

4. Implement the solution

The implement of the solution requires planning and execution,

5. Review the results

To know you successfully solved the problem.

Factors affecting problem-solving

Understanding the problem: the most important factor in solving a problem is to first fully understand it.

Personality types: Different individuals will take different approaches to solve problems and experience varying degrees of success.

Skills: individual skills will also affect the problem-solving process.

Resources available will also slow down or increase the problem-solving process

Metacognition

It refers to the process used to plan, monitor, and assess one's understanding and performance. Metacognitive knowledge can be divided into knowledge variables, task variables, and strategy variables. Metacognition is the ability to control your thinking process through various strategies such as organizing, monitoring and adapting. Metacognition reflects our thoughts and how we gain insight into our feelings, needs, and behaviors, how we learn, manage and adapt to new experiences, challenges, and emotional setbacks.

Examples of metacognitive activities include planning how to approach a learning task, using appropriate skills and strategies to solve a problem, monitoring one's comprehension of the test, self-assessing and self-correcting, in response to the self –assessment, evaluating progress toward the completion of a task.

There are two components of metacognition. They are knowledgeable about cognition and regulation of cognition. Metacognitive activities can guide students as they identify what they already know, communicate their knowledge, skills, and abilities to a specific audience, set goals and monitor their progress, evaluate and revise their work.

Metacognitive phases

Planning, evaluation monitoring

Importance of metacognition

1. It helps students to become independent learners.
2. It has a positive impact on learning
3. It gives training to the students on how to think.
4. It helps the students in the transfer of training.

Critical thinking

Critical thinking is the ability to think clearly. It means it is a disciplined process of actively and skilfully conceptualizing, applying, analyzing, synthesizing, and or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning or communication, as a guide to belief and action.

Critical thinking—reasoning- evaluating- problem solving-decision making analyzing.

Critical thinking skills involve analysis, interpretation, inference, evaluation, explanation, self-regulation, communication, creativity, open-mindedness, problem-solving.

Importance of critical thinking

Critical thinking helps people better understand themselves, their motivation, and their goals. When you can deduce information to find the most important parts and apply those to your life, you can change your situation and promote personal growth and overall happiness. It is important for self-development.

Steps in critical thinking

1. Identify the problem or situation
2. Gather data, opinions, and arguments
3. Analyze and evaluate the data
4. Identify assumptions
5. Establish significance
6. Make a decision or reach a conclusion

ADVANCED EDUCATIONAL PSYCHOLOGY

UNIT-4

Personality and Adjustment

The term "personality" is derived from the Latin word "persona," which referred to the facial mask worn on stage by Roman actors. The term "personality" refers to the total of what a person is, including all the traits organised within him in a distinctively unique way that determines his mode of behaviour and his responses to his environment.

P stands for perception ability

E stands for emotional stability

R stands for responsibility

S stands for sociability

O stands for originality

N stands for neutrality

A stands for appearance

L stands for leadership quality

I stands for integrated

T stands for tendency

Y stands for younger

Characters of personality

- 1, Personality is self-consciousness
2. It is dynamic
3. It is the product of heredity and the environment
4. It is unique
5. It is modifiable and adjustable
6. It is integrated and functions as a whole

THEORIES OF PERSONALITY

TYPE THEORY

In this approach, the personality of the person was classified people according to the psychosomatic type, leadership style and value.

Sheldon" s classification

Dr William H. Sheldon an American Surgeon classified human beings into three broad categories Ectomorphic, Endomorphic and Mesomorphic.

Endomorphic –body type, personality type -viscerotonia, traits- they like food very much eat too much food.

Ectomorphic- body type, personality type- cerebrotonia, traits- disciplined behaviour, a ready response to stimulation, lack of interest in social interactions, hypersensitivity to pain.

Mesomorphic- body type, personality type- somototonia, traits- courage, persistence in behaviour, desire for adventure, involvement in actions.

JUNG'S CLASSIFICATION

The classification of Jung personality types is extrovert and introvert. An extrovert is a person they are easily stimulated by the external environment, he was deeply involved in social activities, he was not very much bothered about external criticism, less worried about failure, express his emotions openly. An introvert is a person they are immersed by his thought, memories, imagination and indifferent to social situations, they are highly sensitive to criticisms and deeply upset by failure, self-centred.

Traits-Approach to personality

Meaning of the term 'Trait'

A personality trait is an enduring and consistent characteristic of a person that is observed in a wide variety of situations. Such terms as intelligence, emotional sensitivity, ascendance, submissions, irritability, warmth, etc. are personality traits.

Cattell's Trait Approach to Personality

Cattell has identified 12 independent or Primary and 4 Secondary traits that describe the complete personality factors which are bipolar (referring to the opposite or extreme degrees).

They are

Primary traits: intelligence, emotionally stable, dominant, cheerful, sensitive, thoughtful and aesthetic, co-operation, genial vigorous, hypersensitive, friendly, conscientious.

Secondary traits: conservative, group dependent, controlled, relaxed

Cattell named these 16 personality traits as 'source traits, differentiating them from surface traits. Surface traits are easily observable, but the real traits are source traits,

Gordon Allport traits theory

According to him, personality traits are key to understanding the uniqueness and consistency of a person's behaviour. He classified the traits into three-level. They are cardinal traits, central traits, and secondary traits.

Cardinal traits

They are rare and dominant usually develop later in life.

Central traits

They are present to varying degrees in all people, central traits influence but do not determine an individual's behaviour. These general characteristics form a basic personality foundation.

Secondary traits

They are occasionally associated with attitudes. They frequently manifest themselves only in specific situations or circumstances. They are present in every individual and have the potential to influence behaviour. They are context-dependent, and thus not appear in all situations.

BIG FIVE MODEL

The five-factor model of personality is a representation of the five fundamental characteristics that interact to form personality. They are conscientiousness, agreeableness, extroversion, neuroticism, and openness.

Agreeableness

This personality dimension encompasses traits such as trust, altruism, kindness, and affection, as well as more mundane behaviours. Individuals with a high level of agreeableness are more cooperative, whereas those with a low level of agreeableness are more competitive and manipulative.

Conscientiousness

This personality dimension includes high levels of thoughtfulness, good impulse control and goal-directed behaviour. People who are high in these traits spend more time for preparation and try to finish tasks.

Extroversion

This person focusing attention outward on other people and the environment, sociability, talkativeness, assertiveness and a high amount of emotional expression.

Neuroticism

This type of individuals tends to become upset or emotional, sad, mood, emotional instability. The person who is high in these traits are felt sadness, irritability, anxiety, and experience mood swings, those who are low in these traits are more stable and emotionally stable.

Openness

These persons are imaginative and insightful. The people who are high in these traits have a broad range of interest, they are curious about the world and other people and eager to learn new thing and new experiences. Those who have low in these traits are more adventurous and creative.

Fraud's psychoanalytical theory of personality

Freud's theory of personality is based on the following two fundamental principles:

- (i) The structure of personality consists of three components that function independently and at the same time affect each other by their mutual interactions. They are ;
 - a. **'Id'** the unconscious mind
 - b. **'Ego'** the conscious mind which corresponds to the self, and
 - c. **'Super Ego'** gets developed by the parental standards and the morals standards of the society.
 - (ii) The human mind operates at three levels viz,
 - a. **Conscious**
 - b. **Unconscious** and
 - c. **Pre-conscious or subconscious** which lies in between the conscious and unconscious.
1. **Id:** It is the inborn reservoir of primitive psychic energy called **'Libido'** which demands immediate satisfaction of its unfulfilled desires and instincts, based on what is known as **'pleasure principle'** regardless of external reality. Id is the source of personality from which ego and super ego develop. All the energy of human behaviour, says Freud, is provided by the inborn id instincts namely sex and aggression, which he later spoke of as **Life Instincts** (Eros) and **Death Instincts** (Thanatos). Personality is moulded by how a person attempts to resolve the conflicts between the Id's demands for immediate gratification of these instincts and Social constraints.
 2. **Ego:** It develops out of the Id because of the need of dealing with the real world around the individual. Ego corresponds to the 'self' and represents reason in keeping the demands of the Id in check. It mediates between the unreasonable demands of the Id restriction laid down by Super Ego. So Ego is the executive agency of personality.
 3. **Super Ego;** It is the system developed in the individual by incorporating parental standards and the moral standards of the society as perceived by the Ego. It is the internalised representation of social and moral values and it is most nearly corresponds to what is known as conscience.

According to Freud, personality is an arena in which what a person wants to do (instinct -Id) conflicts with what he has learnt he should do 9 morality-Super Ego) and where reconciliation is made and compromise arrived at (Ego). The personality of the person is balanced by his Ego's efficiency to balance the Id and Super Ego.

The person who has a strong Ego that succeeds in balancing the Id and Super-Ego will have a healthy and balanced personality, If the Id is more dominant than the Ego then the individual may indulge in unlawful activities and become a delinquent.

Freud's stages of personality development

According to him five stages of psychosexual development. They are the oral stage, anal stage, phallic stage, latency period and genital stage.

Oral stage; the first years of life the child derive pressure through sucking and biting etc. Anal stage; In the second and third year of life, the child derives pressure around the anal region.

Phallic stage; The four and five years of the child derive pressure from touching genitals and boy love towards mother(Oedipus complex), the girl love towards father(Electra complex).

Latency period; It follows up to the child maturity. In this stage child lack interest in sex.

Genital stage; In this stage, the child is physically and mentally mature. They are showing more interest in the opposite sex.

MEASURING PERSONALITY

The personality of the person should be measured by using three methods. They are subjective methods, objective methods and projective techniques.

Subjective methods

Subjective methods include autobiography, self –rating, questionnaires, attitude scale, inventories, interview, aptitude test, interest inventories etc.

Autobiography; is the story of one person's life written by that person. So we know the personal life experiences.

Self – rating; it identifies strength and weakness, character traits, biases and preferences and other shadings of personality. It is the tool used to assess their characteristics.

Attitude scale; It is a special type of questionnaire designed to produce know the opinion and values of the person.

Aptitude scale; is a test assessing an individual's strength, weakness, natural inclination towards success or failure in specific areas based on their innate characteristics.

Interest inventories; It is an inventory help to find the people's interest in particular areas.

Interview; It is the method used to collect directly the personality traits of the individual.
Questionnaire; It is the method or device for securing answers to questions in different areas by using the form which the respondent fills in himself.

OBJECTIVE METHODS

It includes various methods like observation, checklist, rating scale and performance and situational tests.

Observation; It implies keenly watching other's behaviour in inappropriate situations.

Rating scale; It is simply the assignment of numerical score that indicates the rater's judgement of the observed individual's standing on given particular personality traits.

Checklist; It is a list of all the traits that in personality you need to do, information that you want to find out. A checklist is used to find out the personality traits of the people.

Situational tests and performance test; both of them somewhat similar. A situational test is a kind of performance test. The subjects are observed in a situation and they do not know that they are being assessed.

Projective Techniques

Projective techniques strive to get at the fundamental organisation of personality. Relatively ambiguous and unstructured stimuli (like vague pictures, ink blots, incomplete sentences, drawings etc.) presented to the subject and he is asked to structure them in any way he likes. In doing so the subject quite unknowingly projects his desires, hopes, fears, repressed wishes etc. and thus not only reveals his own inner or private world but also gives indications based on which his total personality may be assessed.

The three important types of projective techniques are

- i) Perceptive
- ii) Apperceptive
- iii) Productive

Rorschach Ink-Blot test

This technique was developed by **Hermann Rorschach**, the test Swiss psychiatrist. The test materials consist of 10 cards, each card showing an ink blot figure that is symmetrical in nature on both sides. Out of these 10 figures, five are black-white with different shades of grey. The subject is shown these cards in sequence order, one at a time. He is asked to say "**what he sees in the picture**" or "**what picture reminds him of**". The subject is also to indicate the portions of the ink blot that suggested this response. Usually, there is no time limit for the test but some psychologists note down the reaction time for each card and make use of that in a final interpretation.

Scoring and analysis of responses

Objective scoring of the responses are done based upon three aspects

- (i) Location
- (ii) Determinants
- (iii) Contents

Location: it refers to the particular part of a blot to which a single response refers. Some of the common symbols used in this connection are:

W = whole blot area D = Large
common details d = small
common detail s = white space

Other details regarding the size, actual location such as inside, edge etc. are also marked with different symbols.

Determinants; By a determinant is meant the particular aspect of the blot which directs the perceptual activity. The common determinants are

M- Movement

F-Form

C- Colour

K-Texture or surface appearance

Content: It refers to the actual meaning of the word. The common symbols are

H-Human figures

A-Animal figures

H d-Human details

O b j-Manmade objects

Pl- Plants

At- Anatomical details

Intellectual activity is mostly indicated by F, W, D, etc. The externalised emotions are indicated mostly by C or combinations like C, F and K responses. The internalised emotional life is indicated mostly by M.

THEMATIC APPERCEPTION TEST

This test consists of 20 pictures, each picture depicting a vague social situation. The subject is required to describe the situation as he perceives it. He is asked to describe what is happening at the present moment, as to what it is likely to lead to later on. In short, he is asked to spin a story with the picture. While constructing the stories, usually the individual identifies himself with one of the characters in the picture, thereby projecting on to them, his feelings,

urges, desires and anxieties. The TAT responses are interpreted by analysing the recurring themes in the stories; the needs and frustrations of the hero and the description of the interpersonal relationships of persons in the picture. The responses of the subject help in understanding him. This test was developed by Murray and Morgan. For children, a separate test (CAT) has been developed.

Free Association Tests

Jung developed a free association test and was further elaborated by Kent and Rosanoff. Free association tests involve the uttering of a stimulus word by the tester and the subject responds immediately by another word. The time is taken for a response if long may indicate blocks, needing some more probing. The type of responses when analysed will give a clue to personality characteristics.

Adjustment

Adjustment is a process by which a person tries to strike a balance between his requirements and varying life situations. A well-adjusted person will have sound physical health, free from psychological diseases, conflict, anxiety, worries, depression, tension, and efficiency in his occupation, and a socially accepted person.

Meaning of adjustment

Adjustment is a psychological process by which humans and other animals maintain an equilibrium among their various needs or between their needs and obstacles of their environment. A sequence of adjustment begins when a need is felt and ends when it is satisfied.

Concept of adjustment

Adjustment is defined as a process wherein one builds variations in the behaviour to achieve harmony with oneself, others or the environment to maintain the state of equilibrium between the individual and the environment.

Characteristics of a well-adjusted person

1. Maturity in thinking.
2. Emotional balance.
3. Warm and understanding towards others.
4. Free from tension due to routine events.
5. Independent in decision making.
6. They have high self –esteem, contentment and a realistic view of the world.
7. They have a responsibility, the ability to conduct self-appraisals, and social stability.
8. A well-adjusted person knows how to deal with life's challenges without compromising on the quality of his life.

9. He has a good work-life balance and is motivated to achieve personal goals.
10. He is emotionally stable and can control anger and other emotions well.

Maladjustment

Maladjustment is a term used in psychology to refer to the inability to react successfully and satisfactorily to the demands of one's environment. The maladjusted person has a mental illness, emotional instability, mental disorders, personality disorders, emotional disorders, behaviour disorders and psychological disorder. They have tension, nervousness and deviations in feelings, acting and thinking. Mal adjusted person has frequently withdrawn from difficult situations because weak in facing real-life situations. They are shy and self-conscious, feeling inferiority, high aspirations, aggressive, anxious, fearful, isolated, and sensitive.

Causes of maladjustment

We can classify causes of maladjustment into five categories.

1. Family
 - a. Social
 - b. Economic
 - c. Psychological
2. Personal
3. School
4. Teachers
5. Peer group

Defence Mechanisms

Defence Mechanism is any habitual process of overcoming blocks, in reaching goal, motives and desires, thus relieving frustration, reducing tension and maintaining equilibrium or balance. It enables a person to resolve conflict reduce stress and anxiety. A common type of defence mechanisms are

1. Introversion

This refers to withdrawing oneself totally from the social world and remain isolate. Severe introversion may lead to antisocial behaviour.

2, Fantasy

Infancy an individual allows his mind to wander pleasant imaginary. Gratifying wishes and desires that are ungratified in real life. Due to the excessive fantasy, the individual may not be in a position to distinguish real from the unreal.

This process is continued, results in the reorganisation of the individual personality.

3, Projection

It is the tendency to force on another person, one's own unrealised frustrated ambitions. It can also indicate the attribution of one's fault to another. Some individuals blame others for faults that are manifested in their behaviour. Paranoia a mental disorder the mechanism of projection is used to an extreme degree.

4. Projection

This case involves blaming others or circumstances as an excuse for our action. For example, a student who failed in maths examination may say that on that day the examination hall was dark due to a power cut and hence he could not write well.

5. Compensation

It is the form of behaviour of an individual when he attempts to overcome weakness or limitations by drawing attention to a strong or favourable characteristic, For example. A girl who is not attractive may study very hard and get recognition through academic excellence.

6, Identification

The process of enhancing one's feeling of personal worth through identification of one's self with an illustrious person or institution is called identification. For example, a junior teacher acquires a feeling of self-importance by identifying himself with senior teachers or the head of the institution. Hero worship is a form of identification.

7. Regression

This technique includes behaviour learned in childhood as well as simpler and intellectually inferior types of behaviour in solving problems. , Creating a scene threatening to leave home and refusing to speak childish devices frequently by adults.

8. Displacement

In this one particular motive or motion is turned from its natural object to some other object that is in no way connected with the normal or natural one. For example, the teacher who is angry with his wife snubs the students in the class.

9. Sublimation

In when an individual is faced with a situation in which he is unable to have his urges or impulses gratified and hence is frustrated, he might himself in substitute activities that may easily be satisfied. These substitute activities when they are socially valued and acceptable. For example, a woman who could not get married may find satisfaction by engaging herself in a nursing profession.

10. Withdrawal

The individual tends to withdraw himself from the situation that causes frustration or failure, He makes himself safe and secure by running away from the difficult situation.

11. Suppression

Intentional and forcible avoidance of painful tendencies and distressing circumstances and memories from the field of consciousness are called suppression.

12. Repression

Painful tendencies, distressing experiences, memories and thoughts are pushed from the conscious mind to the unconscious mind and they are not allowed to re-enter into the conscious mind again.

ADVANCED EDUCATIONAL PSYCHOLOGY

UNIT-5

PSYCHOLOGICAL MASUREMENT

Assessment

Assessment provides a systematic basis for drawing conclusions about students' learning and development. It is the process of defining, selecting, designing, collecting, analysing, interpreting, and utilising information to aid in the learning and development of students. Assessment is used to gather relevant data about students' performance or progress, or to ascertain student interest in order to make judgments about their learning process. It assesses students' knowledge.

Functions of the assessment

1. It monitors all activities, including planning, performance improvement, and achievement of desired results.
2. It enables teachers to make informed decisions about how to improve student learning.
3. Assessment assists the teacher in identifying and resolving the student's problem.
4. It aids in the placement of students in remedial courses.
5. It assists the teacher in developing a study plan that is specific to the course of study.
6. It enables the teacher to substantiate the students' responses.
7. It assists the teacher in motivating and inspiring students to learn.

Concept of assessment

Assessment is a broad term in education that refers to the variety of methods educators use to evaluate, quantify, and document students' academic readiness, learning progress and skill acquisition from preschool through college and adulthood. In assessment, information is gathered in relation to a predetermined purpose or objective. In other words, assessment is the process by which performance is measured. Additionally, it assesses the students' knowledge. Although all tests are assessments, not all assessments are tests. The assessment principle is valid, authentic, current, sufficient, and dependable.

Measurement and Evaluation

Measurement is the process of allocating numerical values to events in accordance with a predefined set of rules. Measurement is defined as the act of determining the size or quantity of something. A measurement is when a ruler is used to determine the length of a piece of paper. Measurement requires the use of standardised instruments such as questionnaires, inventories, and scales to assess students' learning, diagnose behaviour, and so on. Measuring distance, time, length, height, weight, and accuracy is critical. We can gain a better understanding of the world around us by measuring.

Evaluation

Evaluation is the process of gathering, analysing, and interpreting data about any educational programme. Evaluation is a systematic method for examining a programme, practise, or intervention and determining how well we accomplish our objectives. Evaluation enables programmers to ascertain what works well and what could be improved. The basic principles of evaluation include;

1. It must be clearly stated what is to be evaluated.
2. Start with clear and measurable statement of objectives.
3. Evaluation process should have proper plan.
4. Evaluation includes measurement, assessment and testing.

Psychological testing

Psychological testing is the process by which psychological tests are administered. A psychological test is "a standardised and objective measure of a sample of behaviour." The term "behavioural sample" refers to an individual's performance on tasks that are typically prescribed prior to head. The items that comprise a paper and pencil test, the most common type of test, are samples of behaviour. A test score is calculated based on how well you perform on these items. A well-constructed test score is thought to reflect a psychological construct such as academic achievement, cognitive ability, aptitude, emotional functioning, and personality. Individual differences in test scores are believed to reflect individual differences in the construct being measured by the test. Psychometrics is the technical term for the science of psychological testing.

A psychological test is a tool used to assess unobserved constructs, colloquially referred to as latent variables. Typically, but not always, psychological tests consist of a series of tasks or problems that the respondent must solve. Psychological tests can be strikingly similar to

questionnaires, which are also used to measure unobserved constructs, but differ in that psychological tests require respondents to provide their typical performance. A psychological test that is useful must be both valid and reliable. After approximately 15 years of development, French psychologist Alfred Binet, along with psychologists Victor Henri and Theodore Simon, published the Binet-Simon test, which focused on verbal abilities, in 1905. Its purpose was to detect mental retardation in school-aged children.

Nature of psychological test

- Psychological tests are tools.
- The psychological test's purpose is to ascertain the distinction between individuals or between the reactions of the same individual under various circumstances.
- Psychological tests assess characteristics of typical behaviour such as personality, interests, values, and attitudes, among others.

Characteristics of psychological test

Proper psychological testing consists of the following characteristics

- **Standardization-** All procedures and steps must be conducted with consistency and under the same environment to achieve the same testing performance from those being tested.
- **Objectivity-** scoring such that subjective judgments and biases are minimized, with results for each test taker obtained in the same way.
- **Test Norms-** The average test scores within a large group of people where the performance of one individual can be compared to the results of others by establishing a point of comparison or frame of reference.
- **Reliability-**Obtaining the same result after multiple testing.
- **Validity-** The types of test being administered must measure what is intended to measure.
- **Practicability-** The test must be practicable in time required for completion, the length, number of items or questions, scoring etc. The test should not be too lengthy and difficult to answer as well as scoring.

Types

There are several categories of psychological test:

- IQ/achievement tests
- Public safety employment tests
- Attitude tests
- Neuropsychological tests
- Infant and preschool assessment
- Personality test
- Objective tests
- Projective tests
- Sexological tests
- Direct observation test
- Interest tests
- Biographical information blank

Norm-referenced test

A norm-referenced measure is a type of test, assessment, or evaluation in which the tested individual is compared to a sample of his or her peers.

1. Nature- Content centered test
2. Measure- Knowledge of subject of a pupil
3. Purpose-Achievement of some specific group on a test in learning outcomes.
4. Item of the test- Wide is learning is covered some aspects of achievement. There is the level of attainment.
5. Information- Indicates the degree of success in learning outcomes on content is the basis.
6. Preparation of the test- Content analysis is done topic-wise and element of content.
7. Validity – Content validity or curricular validity is required
8. Uses – Measuring general knowledge and understanding of the subjects.
9. Answer – Correct responses are counted as test scores or achievements.
10. Diagnosis – It can also be used for diagnostic purposes.

Criterion reference test

Criterion-referenced tests measure a test taker's performance compared to a specific set of standards or criteria.

1. Nature: objective centered test
2. Measure: Objective achievement in terms of behavior.
3. Purpose: Achievement of instructional objectives by students.
4. Items of the test: Limited number of specific objectives. One objective can be measured by several objectives.
5. Information: it provides effectiveness in the instructional procedure of content is the same.
6. Preparation of the test: Content is the same objective are formulated with regards to the content.
7. Validity: Criterion validity or objective validity is required.
8. Uses: Measuring specific objectives are to be realized.
9. Answers: Correct responses are interpreted in terms of objective realization.
10. Diagnoses-These cannot be used for diagnostic purposes.

Standardized Tests

Standardization is the process by which research procedures are maintained uniformly. A great deal of care is taken to ensure that all components of a procedure are identical. To achieve the same testing performance as those being tested, all procedures and steps must be conducted consistently and in the same environment. Scoring in such a way that subjective judgment and bias are minimised, and each test taker obtains the same result (standardization).

ACHIEVEMENT TESTS

The purpose of achievement tests is to assess a student's educational growth and development. Achievement refers to one's educational attainments, accomplishments, and proficiencies, among other things. In other words, the term 'Achievement tests are effective tools for diagnosing a student's unique learning needs, tracking his progress, and forecasting his success in a particular curriculum. Of the various types of tests, achievement tests are frequently used.

FUNCTIONS OF ACHIEVEMENT TESTS

- (i) To provide basis for promotion to the next grade

- (ii) To find out at the beginning of a course of a year where each student stands in the various academic areas of study.
- (iii) To motivate the students for further study.
- (iv) To help the teacher “to see for himself” how effectively the teaching-learning process undertaken by him has been successful or otherwise.

TYPES OF ACHIEVEMENT TESTS

There are two types of achievement tests

- a) Teacher - made achievement tests
- b) Standardized achievement tests

The teacher made achievement tests may further be subdivided into two

- (i) Oral test
- (ii) Written test or Paper-pencil test.

Oral test:

These tests are mostly used in lower classes. An advantage of this test is a large number of areas are covered and knowledge of students can be assessed and it is less time-consuming.

Written test

For a considerable time in the past test and examinations have been regarded as the major tools of evaluation. For that reason, teacher estimates are based on paper and pencil tests. We accepted it as the sole measure of a pupil's ability or achievement. This test is the most popular type of test used for evaluating the students. In the written test commonly three types of questions are present objective type short answers type and essay type.

Construction of the achievement test

Achievement test involved various steps planning of the test, preparation of the design, preparation of the blueprint, writing items, preparation of the scoring key and marking scheme, preparation of question wise analysis.

1. Planning of an achievement test

At first, the planning involved what should be found through achievement tests. The objectives of the particular content or lesson. The next step is to determine the maximum time, maximum marks, nature of the test, and nature of the lesson, etc.

2. Preparation of the design for the test

The objectives, content, form of questions and the difficulty level of items are the most important factors for designing the question paper.

- a. Weightage to objectives; the objectives to be tested are selected and marks are allotted based on knowledge, understanding, application, skills, and interest. More weightage should be given for understanding.
- b. Weightage to the content area; More marks should be allotted for important and lengthy units.
- c. Weightage to difficult level; the question paper should include easy, average and difficult questions. More weightage is given for average questions.

3. Preparation of the blueprint

The blueprint is a three-dimensional chart showing the weightage given to objectives, content, and the form of questions intern of marks. In short, it is the design of the test.

4. Writing of the items

Blueprint gives a clear idea about the number of questions to be written from each topic based on their weightage of content, difficulty level, and types of questions.

5. Preparation of the scoring key and marking scheme

The scoring key should be made strictly following a pre-designed scheme to maintain objectivity.

6. Preparation of question wise analysis

The table contains all relevant details of all items of the test. This is done by analyzing each item interns of content, objective, specification, a form of questions, difficulty level, marks, and estimated time.

Diagnostic test:

The term “Diagnostic tests” has been borrowed from a medical professional where diagnosis means identification of a disease utilizing symptoms of a patient. In education, the meaning of diagnosis is to the analysis of various achievements and difficulties faced by the students in different fields of study of the subject.

Diagnostic testing is an important component of evaluation because it provides feedback to the teachers as well as to the students regarding their strengths and weakness.

Diagnostic testing helps teachers to modify their teaching strategies to make them effective in the light of feedback

Definition:

Diagnostic testing is not ordinarily based on immediate past instructions. It grows out of the child's general educational problem directed towards understanding the dimension and roots of the present difficulty.

Need for diagnosis in teaching:

1. To identify and gain information about the learning difficulties of individual students in specific concepts or contents.
2. To provide specific remediation or remedial instruction measures to help the students overcome or correct the learning difficulties.
3. To individualize instruction and enhance mastery learning.

Characteristics of diagnostic tests:

Finding specific weakness

A diagnostic test intends to find out specific difficulties and weaknesses in the learning of content.

Qualitative

A diagnostic test is qualitative, unlike an achievements test which is quantitative.

Sequence of items

In a diagnostic test, items are arranged in the learning sequence in order of positive transfer of learning.

Analysis of items

Diagnostic test items are analyzed based on wrong responses of the student on an item.

Assigning scores

In the diagnostic test, scores are not assigned for correct responses but wrong responses are considered because of the sequence of the content to identify the cause for the wrong answer.

Difficulty in scoring

Scoring and interpretation of diagnostic test scores are more difficult than the achievement test. The subject specialist is a must for identifying the causes of wrong answers.

Objective type of test

Objective type of test can be effectively used in the diagnostic test. The essay-type test cannot be used for diagnostic purposes.

No omission of the learning point

In diagnostic tests, no learning point is omitted or ignored. All important points in the lesson are taken into consideration.

Tool for remedial teaching

It is an important tool for remedial teaching. The purpose of the diagnostic test is remedial teaching and instruction. Tutorial groups are formed based on diagnostic tests. Teachers can select weak students and remove their difficulties, improve their performance.

Principles of diagnostic test

1. Analyzing content.
2. Selection of content matter.
3. Pilot study.
4. Reliability.
5. The final version of diagnostic study.

Steps for construction of diagnostic test

1. Formulating objectives.
2. Outlining the content.
3. Content analysis.
4. Identifying the difficulty level of sub-topics.
5. Decide the type of items.
6. Items are prepared and tried out.
7. Items are analyzed and modified.
8. The logical sequence of content is analyzed by preparing a scalogram.
9. Preparing final draft.

10. Preparing manual of the test.

11. Prepare remedial devices.

Uses of the diagnostic test.

1. Finding strength and weakness of the individual and class.
2. It is an effective tool for the make all the insight available for research.
3. It helps the teacher to get feedback about teaching and learning.
4. Diagnostic evaluation provides the basis for giving guidance and counseling to the pupils.

APTITUDE TEST

Aptitude tests measure whether an individual has the capacity or latent ability to learn a given job skill. The specific capacities or aptitudes are mechanical, clerical, linguistic, musical, and academic. Certain major capacities include motor capacities such as finger dexterity, hand dexterity, and hand-eye coordination.

Clerical aptitude test questions include office vocabulary arithmetic, spelling, speed, and accuracy of perception.

1. The Minnesota Clerical Test is a group test consisting of two parts (a) numbers of comparison, (b) name of comparison. It is a speed test to determine the individual's accuracy when working for a limited period.
2. The General Clerical Test is a group test that consists of (a) numerical (b) verbal, booklet A contain items on checking alphabet, numerical complications, the error location, and arithmetic reasoning. Booklet B contains spelling, reading comprehension, vocabulary, and grammar.
3. Psychomotor ability tests, many job industries, and the military require a high degree of motor skill involving muscular coordination, finger dexterity, precise eye-hand coordination, etc.

Uses of aptitude test

It is used for the basic choice of courses and gives educational and vocational training to the people. Selection of people for socially productive work.