

Introduction to psychology

Psychology *is defined as the scientific study of behavior and mental processes.* If you are like most people, you have made many observations about both and perhaps have developed a few of your own theories to explain them. From television, radio, or the Internet, you probably also have had some exposure to “expert” opinions on behavior and mental processes.

The **scientific method** consists of the orderly, systematic procedures that researchers follow as they identify a research problem, design a study to investigate the problem, collect and analyze data, draw conclusions, and communicate their findings.

The scientific method includes the following **steps**:

- Step 1: Observe and theorize
- Step 2: Formulate a hypothesis
- Step 3: Design a study
- Step 4: Collect data
- Step 5: Apply results to the hypothesis

STEP 1: Observe and Theorize. The first step in the scientific method is an interactive one in which a researcher observes some phenomenon and theorizes, or develops a hunch, about what might have led to it. For instance, suppose a psychologist observes students playing video games on a big-screen TV in a student lounge and notices that the men tend to get higher scores than the women do.

Theory

hypothesis

STEP 2: Formulate a Hypothesis. Based on her hunch about the cause of gender differences in video game scores, the researcher next comes up with a hypothesis, a specific prediction that can be tested empirically—that is, with data. Although the researchers’ theory suggests many possible hypotheses, one, in particular, is key to understanding the contribution of practice to video game scores: If males and females spend equal amounts of time practicing a game, their scores will be equal.

STEP 3: Design a Study. Next, to test the hypothesis about equal practice, the researcher could design a study in which she uses the same procedures to teach male and female students how to play a new video game. Then she allows them 30 minutes

to practice it on their own. At the end of the practice session, she tells participants to play the game one more time but to try for the highest score possible.

STEP 4: Collect Data. Once the researcher conducts her study, she collects data that are relevant to her hypothesis. First, she calculates an average score for male and female participants. Then she calculates the amount of time that participants actually spent practicing the game.

STEP 5: Apply Results to the Hypothesis. If the scores for males and females are equivalent, the researcher can conclude that the data support her hypothesis. That is, given the same amount of practice time, males and females will score equally well.

Replication The process of repeating a study to verify research findings.

The Goals of Psychology

Briefly put, psychologists pursue four broad goals:

Description: Identifying and classifying behaviors and mental processes as accurately as possible

Explanation: Proposing reasons for behaviors and mental processes

Prediction: Offering predictions (or hypotheses) about how a given condition or set of conditions will affect behaviors and mental processes

Influence: Using the results of research to solve practical problems that involve behavior and mental processes

Two types of research help psychologists accomplish the four goals just described:

Basic research

Research conducted to seek new knowledge and to explore and advance general scientific understanding.

Applied research

Research conducted specifically to solve practical problems and improve the quality of life.

Early schools of psychology

There are five early schools of psychology. These schools differ in three significant ways.

- In their **object** of study, i.e. what they studied. (Conscious mind, unconscious mind, and overt behavior).
- In their **goal** (analyze the components of the mind or observing the effect of the environment on behavior).
- In their **method** (Introspection, observation, clinical case studies, etc...).

Structuralism– structuralism views psychology as a study of structure of mind. It is an *expansion of Wundt's ideas* by his student **Edward Titchener (1867-1927)**. Titchener is the founder of structuralism. The goal of structuralists was to find out the units or elements, which make up the mind such as; sensations, images, and feelings. The best-known method used by them was introspection “looking within” a procedure aimed at analyzing the mental experience into three basic mental elements: images, feelings, and sensations.

Functionalism- functionalism views psychology as a study of *function of the mind*. The founder of this school of thought is **William James (1848-1910)**, who was the first American psychologist and the author of the first psychology textbook. Unlike Wundt and Titchener, James focused on how the mind allows people to function in the real world; how people work, play, and adapt to their surroundings, a viewpoint he called functionalism. He developed many research methods other than introspection including questionnaires, mental tests and objective descriptions of behavior. Generally, according to functionalists, psychological processes are adaptive. They allow humans to survive and to adapt successfully to their surroundings.

Gestalt psychology- Gestalt psychology views psychology as a study of the whole mind. **Max Wertheimer and his colleagues** founded this school of thought in Germany in the 20th century.

Gestalt psychologists argued that the mind is not made up of combinations of elements. The German word “*gestalt*” refers to *form, whole, configuration or pattern*. According to them, the mind should be thought of as a result of the whole pattern of sensory activity and the relationships and organizations within their pattern. In brief, the gestalt psychologists acknowledge *consciousness*. They held that “the whole is greater than

the sum of its parts. Means mind is greater than its parts (images, sensations, and feelings).

Behaviorism- behaviorists view psychology as a study of observable and measurable behaviors. **John B. Watson** is the founder of behaviorism and other proponents include **E. Thorndike** and **F. Skinner**. For Watson, psychology was the study of observable and measurable behavior and nothing more about hidden mental processes. According to Watson, we cannot define consciousness any more than we can define the soul; we cannot locate it or measure it and therefore it is not the object of scientific study.

Psychoanalysis- psychology studies about the components of the unconscious part of the mind. **Sigmund Freud (1856-1939)** is the founder of this school of thought. He was the most controversial and most popular in the study of behavior and mental processes. Sigmund Freud, based on his patients' reports of depression, nervousness, and obsessive habits, he becomes convinced that many of his patients' symptoms had mental, not bodily, causes. He finally came to the conclusion that their distress was due to conflicts and emotional traumas that had occurred in early childhood and that were too threatening to be remembered consciously.

Freud argued that conscious awareness is the tip of the mental iceberg beneath the visible tip that lays the unconscious part of the mind. The unconscious which is the subject matter of psychoanalysis contains hidden wishes, passions, guilty secrets, unspeakable yearnings, and conflict between desire and duty. We are not aware of our unconscious urges and Mktongue, apparent accidents and even jokes. He used clinical case studies (hypnosis and Dream analysis) as a method.

Humanistic Psychology- Humanistic psychology focuses on each individual's potential and stresses the importance of growth and self-actualization. The fundamental belief of humanistic psychology is that people are innately good and that mental and social problems result from deviations from this natural tendency.

Humanistic psychology also suggests that people possess personal agency and that they are motivated to use this free will to pursue things that will help them achieve their full potential as human beings.

Modern schools of psychology/ Perspectives

Modern psychologists tend to examine human behavior through several views. The views that predominate today are psycho dynamic, behavioral, humanistic, cognitive, biological, and sociocultural perspectives. These views reflect different questions about human behavior, different assumptions about how the mind works, and different kinds of explanations why people do and what they do.

Psychodynamic perspective – It has its origins in Freud’s theory of psychoanalysis, but many other psychodynamic theories exist. This perspective emphasizes unconscious dynamics within the individual such as inner forces, conflicts or instinctual energy. The psychodynamic approach emphasizes:

- The influence of unconscious mental behavior on everyday behavior
- The role of child personality in determining adult personality
- The role of intrapersonal conflict in determining human behavior

Psychodynamic perspective tries to dig below the surface of a person’s behavior to get into unconscious motives; they think of themselves as archaeologists of the mind.

Behavioral Perspectives-

They emphasize the important role that previous learning experiences play in shaping the behavior of an organism. They are concerned with how the environment affects the person’s actions. Behaviorists focus on environmental conditions (rewards and punishments) that maintain or discourage specific behaviors. The behavioral perspective is sometimes called “*black box*” psychology because it treats the mind as a mechanical black box and focusing *on what goes into and out of the box, but not on the processes that take place inside*. This means, behaviorists are only interested in the effects of the environment (input) on behavior (output) but not the process inside the box.

Humanistic Perspective-

According to this perspective, human behavior is not completely determined by either unconscious dynamics or the environment. Rather it emphasizes the uniqueness of human beings and focuses on human values and subjective experiences. This perspective places greater importance on the individual’s free will. The goal of humanistic psychology was helping people to express themselves creatively and

achieve their full potential or self-actualization, (developing the human potential to its fullest).

Cognitive Perspective-

It emphasizes what goes on in people's heads; how people reason, remember, understand language, solve problems, explain experiences and form beliefs. This perspective is concerned about the mental processes. The most important contribution of this perspective has been to show how people's thoughts and explanations affect their actions, feelings, and choices. Techniques used to explore behavior from a cognitive perspective include electrical recording of brain activity, electrical stimulation and radioactive tracing of metabolic activity in the nervous system.

Biological Perspective-

It focuses on how bodily events or functioning of the body affect behavior, feelings, and thoughts. This perspective holds that an understanding of the brain and the nervous system is central in the understanding of behaving, thoughts, and emotions. Researchers of this perspective study how biology, for instance, the brain and various brain chemicals affect psychological processes such as learning, performance, perception of reality, the experience of emotions, etc.

Biological perspective pointed out that biology and behavior interact in a complex way which means behavior can affect biology and biology can affect behavior. It also emphasized the idea that we are physical beings who evolved over a long time and that our genetic heritage can predispose us to behave in a certain way. Just as we evolved eyebrows to protect our eyes, we may have evolved certain kinds of behavior patterns to protect our bodies and ensure the survival of our species.

Sociocultural Perspectives-

It focuses on the social and cultural forces or factors outside the individual that affects human behavior. As a fish cannot live without water, human behavior cannot be understood without the sociocultural context (the social and cultural environment) that people "Swim" in every day. Within this perspective, social psychologists consider roles, how groups affect attitudes and behaviors, and why authority and other people like spouses, lovers, friends, bosses, parents, and strangers affect each of us. Cultural psychologists also examine how cultural rules and values (both explicit and unspoken) affect people's development, behavior, and feelings. They said humans are both the products and the producers of culture, and our behavior always occurs in some cultural contexts

Branches of psychology

There are different branches (fields) of psychology according to the area they are concerned with. Some of them are:

Developmental psychology –It studies the physical, cognitive and psychological changes across the lifespan. In particular, it focuses on the biological and environmental factors that contribute to human development.

Personality Psychology – it focuses on the relatively enduring traits and characteristics of individuals. Personality psychologists study topics such as self-concept, aggression, moral development, etc.It is the branch of psychology that focuses on the study of thought patterns, feelings, and behaviors that make each individual unique.

Social Psychology –deals with people’s social interactions, relationships, social perception, and attitudes.Social psychology uses scientific methods to understand how social influences impact human behavior. It seeks to explain how feelings, behavior, and thoughts are influenced by the actual, imagined or implied presence of other people.

Cross-cultural Psychology – examines the role of culture in understanding behavior, thought, and emotion. It compares the nature of psychological processes in different cultures, with a special interest in whether or not psychological phenomena are universal or culture-specific.

Industrial psychology – applies psychological principles in industries and organizations to increase the productivity of that organization.Organizational psychologists are involved in assessing and making recommendations about the performance of people at work and in training.

Forensic psychology – applies psychological principles to improve the legal system (police, testimony, etc..).A forensic psychologist practices psychology as a science within the criminal justice system and civil courts.It involves assessing the psychological factors that might influence a case or behavior and presenting the findings in court.

Educational Psychology – concerned with the application of psychological principles and theories in improving the educational process including curriculum, teaching, and administration of academic programs.

Health Psychology – Health psychology is also called behavioral medicine or medical psychology. It observes how behavior, biology, and social context influence illness and health. A physician often looks first at the biological causes of a disease, but a health psychologist will focus on the whole person and what influences their health status. This may include their socioeconomic status, education, and background, and behaviors that may have an impact on the disease, such as compliance with instructions and medication.

Clinical Psychology is a field that applies psychological principles to the prevention, diagnosis, and treatment of psychological disorders. Clinical psychology integrates science, theory, and practice in order to understand, predict and relieve problems with adjustment, disability, and discomfort. It promotes adoption, adjustment, and personal development.

Counseling Psychology: – is one of the largest branches of psychology. It is centered on treating clients in mental distress who may be experiencing a wide variety of psychological symptoms.

Psychiatry: is a field that diagnoses and treats psychological disorders by using medical and psychological forms of therapy. These include various maladaptations related to mood, behavior, cognition, and perceptions.

Neuropsychology- Neuropsychology looks at the structure and function of the brain in relation to behaviors and psychological processes. A neuropsychologist may be involved if a condition involves lesions in the brain, and assessments that involve recording electrical activity in the brain.

Research methods in psychology

- Observational Method
- Experimental Method
- Development Method
- Case studies
- Introspection
- Clinical Method

1.Observational Method

Observational research is a research technique where you observe participants and phenomena in their most natural settings. This enables researchers to see their subjects make choices and react to situations in their natural setting, as opposed to structured settings like research labs or focus groups

Observational research is non-experimental because nothing is manipulated or controlled, and as such we cannot arrive at causal conclusions using this approach. The data that are collected in observational research studies are often qualitative in nature but they may also be quantitative or both (mixed-methods)

2.Experimental Method

An experiment is a research method used by psychologists which involves the manipulation of variables in order to discover cause and effect. It differs from non-experimental methods in that it involves the deliberate manipulation of one variable, while trying to keep all other variables constant.

Independent Variable (IV): The variable whose impact is being studied; that is manipulated...in terms of kind or level

Dependent Variable (DV): The measure of behavior on which the impact of independent variable is being studied

Control variable (CV): A potential independent variable that can have an impact upon dependent variable; it has to be controlled

3.Developmental Method

Developmental research in psychology is the study of growth and change across the human lifespan.Characteristics seen in developmental psychology include looking at the effects of age, gender, nature vs nurture, relationships and deprivation.

Some research methods used in developmental psychology include observations, interviews, self-reports and case studies. Some research designs typically used in developmental psychology are longitudinal, cross-sectional, cross-sequential and micro-genetic. Developmental research can help us to understand the effects of genetics and the environment on how children can develop differently.

4.Introspection

The **meaning of introspection in psychology** is “Looking Inward” or “Peeping into Oneself”. Introspection refers to a person’s knowledge of his inner state or feelings. It is considered as a favorable method for **psychologists** till the end of the 19th century and beginning of 20th century. At the level of consciousness, information about the inner state of each individual can be obtained directly.

The introspection method is used in a wider sense for thought training, solution of problems, dream analysis, and psychological cognition. Introspection is not only a reflexive experiment but subjects are efficient, so they can make analysis accurately, explain it and answer the questions of instant inner feelings according to defined rules.

5.Clinical method

The process by which a health or mental health professional arrives at a conclusion, judgment, or diagnosis about a client or patient in a clinical situation. The clinical method is used by clinical psychologists, psychiatrists and teachers. This method is used in studying the patients who are suffering from mental and behavioral disturbances and whose conduct is snit social. Generally, we use this method when we want to understand the causes and sources of people's fears, anxieties, worries, frustrations, obsessions, their emotional, social, mental, educational and vocational maladjustments. This method is primarily used for diagnosing and treating a problem case.

6.Case studies

Case studies are in-depth investigations of a single person, group, event or community. Typically, data are gathered from a variety of sources and by using several different methods (e.g. observations & interviews). The procedure used in a case study means that the researcher provides a description of the behavior. This comes from interviews and other sources, such as observation.

The client also reports details of events from his or her point of view. The researcher then writes up the information from both sources above as the case study, and interprets the information.

What is the difference between a psychologist, a psychiatrist and a psychoanalyst?

Psychologist

A psychologist mainly deals with emotional issues. They generally need to get a doctorate or PhD degree in clinical psychology or counselling psychology for the practice. A person with low-self esteem will go to consult a psychologist because he needs to vent out his suppressed emotions and doesn't have any physical disturbances. A psychologist can never prescribe any medication for the treatment.

Psychiatrist

A psychiatrist is a physician who deals with mentally ill patients. They need an MD degree in psychiatry after pursuing MBBS. They can only prescribe medicines for a patient. Someone with Schizophrenia will consult a psychiatrist because he has some physical changes in him and needs medicines for the treatment. Psychiatrists deal with clinical issues rather than emotional ones.

Psychoanalyst

Psychoanalysts follow Freudian theories for therapy which includes childhood memories in the subconscious mind, dreams, infantile sexuality, libido, repression and transference. A psychoanalyst is more like a psychologist who deals with emotional problems. But they cannot prescribe medicines and their method of counselling is a bit different from that of a psychologist. They focus on the subconscious memories of a patient to find a solution to the current problem. And psychoanalysts need to meet their patients three to four times a week rather than once in a week.

Therapy

Psychotherapy is a collaborative treatment based on the relationship between an individual and a psychologist. A psychologist provides a supportive environment that allows patients to talk openly with someone who is objective, neutral, and nonjudgmental

Disorders and Its types

Disorder – An illness that disrupts normal physical or mental functions.

Freud Model of the Human mind

Understanding the human mind is at the core of psychoanalytic theory. Since the introduction of the theory of Sigmund Freud in the early 1900's and despite the many advancements in the study of psychoanalytic theory Freud's basic thoughts retain a strong hold on the shaping of views regarding the theory of the human mind.

At the center of Freud's theory are psychopathologies that result in a mental illness within a subject. It is Freud's premise that within the human mind is contained in three levels of awareness or consciousness. It is the introduction of these psychopathologies that affect people, thus requiring more than simply talking about them. The effective treatment of these deep seated psychopathologies is psychoanalysis.

In the illustration below is Freud's division of these three levels and the estimated usage of each level. They are the **conscious, subconscious, and unconscious**. Working together they create our reality.

Etymology of mind

The origin of the meaning of the mind offers a long and rich history. If spoken of by a philosopher the mind may well mean one's personality, identity, and their memories. For the religious the mind houses the spirit, an awareness of God, or to the scientist the mind is the generator of ideas and thoughts. The mind has carried with it many diverse labels. In its infancy references to the mind truly were metaphoric.

It was not until the 14th and 15th centuries that the generalization of *mind* to include all mental faculties, thought, volition, feeling, and memory gradually developed.

In the late 19th and early 20th century brought psychology to the forefront as a respected science. Due in no small part to the work of Freud and others, the popular focus on the human mind, its role in the behavioral sciences, and the mind/body question solidified. Today, the concept of the mind and its functions is almost always discussed from a scientific point of view.

Freud's Conscious Mind

Since consciousness is best understood as having an awareness of something, being able to call it to mind, it would seem simple enough to qualify only those events we can recall as the activities of the human mind.

There are two challenges to this view. First, there is the estimate that only about 10% of the mind's work is made up of conscious thought and secondly, this view does not explain those random events created within the mind.

The two functions that the capabilities of the conscious mind can address are:

1. ***Its ability to direct your focus.***
2. ***Its ability to imagine that which is not real***

Freud's Subconscious Mind

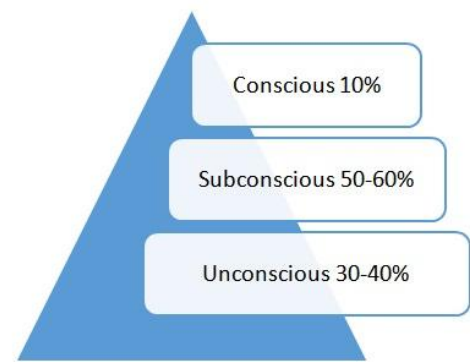
Your subconscious is the **storage point for any recent memories needed for quick recall**, such as what your telephone number is or the name of a person you just met. It also holds **current information** that you use every day, such as your **current recurring thoughts, behavior patterns, habits, and feelings.**

The workhorse of the mind/body experience, Freud's subconscious mind serves as the mind's random access memory (RAM). "Thus the unconscious mind can be seen as the source of **dreams and automatic thoughts** (those that appear without any apparent cause), **the repository of forgotten memories** (that may still be accessible to consciousness at some later time), and the **locus of implicit knowledge** (the things that we have learned so well that we do them without thinking)."

Freud's Unconscious Mind

The unconscious mind is **where all of our memories and past experiences reside.** These are memories that have been **repressed through trauma** and those that have simply been consciously forgotten and no longer important to us (automatic thoughts). It's from these memories and experiences that our **beliefs, habits, and behaviors are formed.**

A review of the earlier illustration shows the unconscious, sitting a layer deeper in the mind under the subconscious. Although the subconscious and unconscious have direct links to each other and deal with similar things, the unconscious mind is really the cellar, the underground library if you like, of all your memories, habits, and behaviors. It is the



storehouse of all your deep seated emotions that have been programmed since birth.

Freud's psychoanalytic theory teaches that it is here, in the unconscious mind, that necessary change can occur through the use of psychoanalysis.

Comment

As has been mentioned Freud's psychoanalytic theory and related interventions with those showing symptoms of a mental illness is not static. The use of today's modern psychology in the areas of theory and practice has opened Freudian theory to many new ideas.

In the middle of the broad support and criticism of psychoanalysis there has been significant progress in its use as a valid approach to treatment. To gain an important historical perspective on mental health treatment Freud's psychoanalytic theory is worthy of study.

LEARNING

The process of learning is continuous which starts right from the time of birth of an individual and continues till the death. We all are engaged in the learning endeavors in order to develop our adaptive capabilities as per the requirements of the changing environment.

For a learning to occur, two things are important:

1. The *presence of a stimulus* in the environment and
2. The *innate dispositions* like emotional and instinctual dispositions.

A person keeps on learning across all the stages of life, by constructing or reconstructing experiences under the influence of emotional and instinctual dispositions.

Psychologists in general define Learning as relatively permanent behavioral modifications which take place as a result of experience. This definition of learning stresses on three important elements of learning:

1. Learning involves a behavioral change which can be better or worse.
2. This behavioral change should take place as a result of practice and experience. Changes resulting from maturity or growth cannot be considered as learning
3. This behavioral change must be relatively permanent and last for a relatively long time.

John B Watson is one amongst the first thinkers who has proven that behavioral changes occur as a result of learning. Watson is believed to be the founder of the Behavioural school of thought, which gained its prominence or acceptability around the first half of the 20th century.

Gales defined Learning as the behavioral modification which occurs as a result of experience as well as training.

Crow and Crow defined learning as the process of acquisition of knowledge, habits and attitudes.

According to **E.A, Peel**, Learning can be described as a change in the individual which takes place as a result of the environmental change.

H.J. Klausmeir described Learning as a process which leads to some behavioral change as a result of some experience, training, observation, activity, etc.

Types of Learning

1. **Motor** Learning: Our day to day activities like walking, running, driving, etc, must be learnt for ensuring a good life. These activities to a great extent involve muscular coordination.
2. **Verbal** Learning: It is related to the language which we use to communicate and various other forms of verbal communication such as symbols, words, languages, sounds, figures and signs.
3. **Concept** Learning: This form of learning is associated with higher order cognitive processes like intelligence, thinking, reasoning, etc, which we learn right from our childhood. Concept learning involves the processes of abstraction and generalization, which is very useful for identifying or recognizing things.
4. **Discrimination** Learning: Learning which distinguishes between various stimuli with its appropriate and different responses is regarded as discrimination stimuli.
5. **Learning of Principles**: Learning which is based on principles helps in managing the work most effectively. Principles based learning explains the relationship between various concepts.
6. **Attitude Learning**: Attitude shapes our behavior to a very great extent, as our positive or negative behavior is based on our attitudinal predisposition.

3 Types of Behavioural Learning

The Behavioural School of Thought which was founded by John B Watson which was highlighted in his seminal work, "**Psychology as the Behaviorist View It**", stressed on the fact that Psychology is an objective science, hence mere emphasis on the mental processes should not be considered as such processes cannot be objectively measured or observed.

Watson tried to prove his theory with the help of his famous Little Albert Experiment, by way of which he conditioned a small kid to be scared of a white rat. The behavioral psychology described three types of learning: Classical Conditioning, Observational Learning and Operant Conditioning.

1. **Classical Conditioning:** In case of Classical Conditioning, the process of learning is described as a Stimulus-Response connection or association.

Classical Conditioning theory has been explained with the help of Pavlov's Classic Experiment, in which the food was used as the natural stimulus which was paired with the previously neutral stimuli that's a bell in this case. By establishing an association between the natural stimulus (food) and the neutral stimuli (sound of the bell), the desired response can be elicited. This theory will be discussed in detail in the next few articles.

2. **Operant Conditioning:** Propounded by scholars like Edward Thorndike firstly and later by B.F. Skinner, this theory stresses on the fact that the consequences of actions shape the behavior.

The theory explains that the intensity of a response is either increased or decreased as a result of punishment or reinforcement. Skinner explained how with the help of reinforcement one can strengthen behavior and with punishment reduce or curb behavior. It was also analyzed that the behavioral change strongly depends on the schedules of reinforcement with focus on timing and rate of reinforcement.

3. **Observational Learning:** The Observational Learning process was propounded by Albert Bandura in his Social Learning Theory, which focused on learning by imitation or observing people's behavior. For observational learning to take place effectively, four important elements will be essential: Motivation, Attention, Memory and Motor Skills.

Methods of learning

There are mainly 5 different methods of learning;

1. Trial and Error Method
2. Conditional Response
3. Learning by Insight
4. Learning by Imitation
5. Transfer of Training

Trial and Error Method

This is the most primitive and simplest way in which learning occurs.

Placed in a new situation, the individual makes a number of random movements. Those who are unsuccessful are eliminated, and successful ones are fixed. It is learning by blundering, trying something, and succeeding or failing.

Conditional Response

This theory evolved as a result of the experiments by Ivan Pavlov and Watson. It is a process of substituting the original stimulus with a new one and connecting the response with it.

Pavlov experimented on a dog. He used to ring a bell while giving food to the dog. When the food was placed before the dog and the bell was rung, the saliva would be secreted in the mouth of the dog.

But it was also seen that the saliva started secreting when the bell was rung only, but the food was not given. Pavlov called the response a 'conditioned reflex.'

In learning by the conditioned response, there is no choice or freedom. A good part of learning in early childhood is the result of conditioning.

Learning by Insight

Gestalt psychologists opposed the trial and error method. They argue that learning is not a blind and mechanical process. It involves insight into the total situation.

In learning, we use our senses along with the motor activity. Learning by observation is learning by insight, learning by perceiving the relationship in the scene and understanding the situation.

After looking over the whole situation, the learner strives to make some sense of it. It gives him clues regarding how he should solve the problem, the method he should pursue, and general awareness of the consequences of performing an act.

Learning by Imitation

Imitation is one of the most important means of learning.

Human beings, consciously or unconsciously, imitate their fellow beings' actions, manners, and styles. A child learns to walk, talk and behave as his parents or brothers do. It is important, therefore, that the first model should be worthy of imitation.

Imitation does not crush originality: on the other hand, it is the first stage in the development of individuality, and the richer scope for imitation, the richer the developed individual will be.

Transfer of Training

Transfer of training means that training is transferred from one skill to another. It has special significance for all kinds of industrial training programs.

Stated simply, transfer of training deals with whether or not learning in one situation will facilitate learning (and therefore performance) in subsequent similar situations. There are three possibilities:

- a) Positive transfer: learning in one situation enhances learning or performance in a new situation.
- b) Negative transfer: learning in one situation inhibits learning in a new situation.
- c) No observable effect.

Major factors that affect learning process

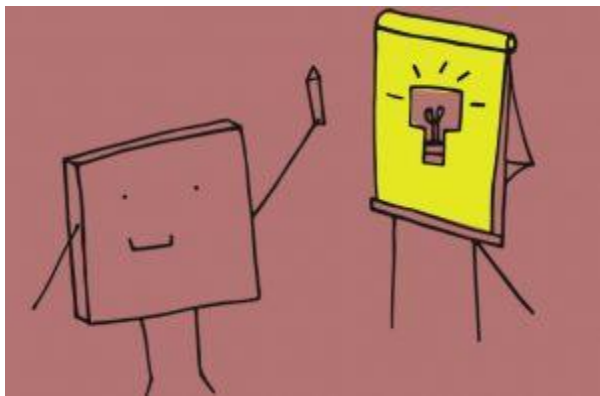
1. Intelligence: There is no commonly recognized definition of intelligence. So, intelligence is defined in terms of operations. It is the ability to solve problems, think, reason, relate to others, deal with emotions, develop interests, have a sense of right and wrong, and live in line with our circumstances.

The capacity to solve problems and create commodities that society values is characterized as intelligence. It is argued that people have several bits of intelligence that operate from different areas of the brain and that the idea of a single intellect is thus erroneous. He also contended that different persons possessed varying combinations of the various bits of intelligence.

2. Aptitude: Aptitude is a person's innate ability to perform a task. Some youngsters are naturally gifted in mathematics, while others must put in a lot of effort to succeed. Some youngsters are born with the capacity to sketch and paint, while others excel in sports and activities.

An aptitude test is used to assess a person's ability to do a certain profession. Aptitude tests are also used to determine a child's capacity to execute numerical crunching, verbal thinking, and spatial abilities, and to determine which of these he or she will acquire readily.

3. Goals: Setting objectives will help us find our way. Our motivation is influenced by the sort of goals we establish. If we set urgent goals, such as passing an exam, our learning is only transient, and we quickly forget everything after the exam.



4. Self-Concept (also known as self-esteem, self-image, and self-efficacy): Self Esteem refers to a person's entire subjective assessment of his value. The importance that a person places on themselves. Self-Image: This relates to one's own opinions of oneself – one's strengths and talents, as well as one's faults and limits.

"I'm brilliant in math and English but terrible at geography," for example. Self-esteem: this is a self-evaluation that a person forms after engaging with the subject for some time. Self-Efficacy: This is a person's belief in their ability to do tasks. This is about a person's confidence in his capacity to achieve or complete a task.

5. Motivation: Motivation is an internal condition that stimulates and sustains conduct. Intrinsic motivation and extrinsic motivation are the two forms of motivation. Motivating an adolescent entails encouraging him or her to use his or her inner resources, feeling of competence, self-esteem, and autonomy.

6. Locus of control: The locus of control is a person's belief about what causes good or negative outcomes in their life. Example: A student with a high internal locus of control feels that their work and talents influence their grades.

As they learn about their weaknesses, these pupils alter their study techniques. A student with a strong external locus of control feels that their exam outcomes are mostly determined by fate or chance.

7. Maturation and readiness to learn: There is always a suitable period for each individual to efficiently learn a certain ability. This proper period happens only when a person's physical and intellectual development has evolved sufficiently to allow them to notice and deal with an issue.

For example, if a teenager is given project management skills, he may be unable to retain the information since his mental development has not progressed sufficiently. Maturity is defined as a semi-permanent change in an individual caused by biological aging, whether cognitive, emotional, or physical.

8. Aspirational Level: The lever of aspiration relates to how far and where individuals set their attainment objectives and targets. It is decided by our previous successes and failures. For instance, if success or failure is ascribed to internal sources, success would result in pride, desire, and learning.

Failure results in a low degree of desire and learning. If a person believes he has control over his learning, he is considered to have a high level of ambition

because he chooses to pursue more challenging activities and exerts more effort.

9. Learning Approaches: Every person learns differently. Another name for learning style is learning preferences. The way a person processes knowledge is also influenced by his or her learning style. Some students adopt a deep processing method that focuses on understanding the underlying meaning, while others use a surface processing strategy that concentrates on memorizing.

A person's learning style (or preferences) may also be related to his or her preference for utilizing his or her senses. Some examples are visual, auditory, and kinesthetic learners.

10. The media: All media are essentially delivery media since they deliver, i.e., transmit information from the sender to the recipient. The learner is a receiver and consumer of information delivered through media. Print media and non-print media are the two major kinds of media.

The term "**print media**" refers to text or printed materials. It is cost-effective and has historically been utilized for instructional tools. However, technology is neither the only nor the best medium for delivering education. Non-print media, often known as contemporary electronic media, have distinct characteristics that, in some situations, allow learning far faster than print media. This aids in meeting a variety of learning objectives more efficiently than printed material.

Certain non-print media forms and delivery mechanisms can help pupils study more effectively. These emotions energize pupils and inspire them to engage in the teaching-learning process. As a result, media may help kids learn better, but appropriate media use necessitates the application of well-developed

media-specific abilities. If these talents are not adequately developed, the message may be misconstrued or received, accepted, and reacted to uncritically.

Conclusion

Any discussion of learning seeks to uncover the elements that influence it, whether these aspects are psychological, socio-cultural, school-related, or linked to the teaching-learning process. Intelligence, motivation, self-concept, attitude, interests, learning styles, emotions, and so on are all important psychological elements influencing learning. Similarly, socio-cultural aspects influencing learning include family, home environment, neighborhood, community, peer-group, and so on.

Similarly, school climate, school regulations, physical infrastructure, co-curricular activities, teaching approach used, methods of learning, learning media used, and so on are some of the school-related elements that have a major influence on student learning. To moderate the learning process, these numerous elements interact in various ways and combinations. It is quite difficult to separate any of these characteristics from the others. You must have comprehended how each of these components is conceptualized and understood, as well as its susceptibility to individual variation and link to learning

ATTENTION

DEFINITIONS

- Attention is derived from **the Latin word "Attentis"** which means to notice, to observe, or to consider.
- It is concentrated direction of **mental state** towards **certain stimulus** for example tennis match, lecture, cricket match etc
- According to **James Ward** to be conscious of a thing and to attend to mean one and the same thing.
- According to Dr. Munn Dodge and his fellows, attention is an act or processes are a function and not an **ability**.
- According to Stout attention refers to the personal interest which helps an individual to recognize a thing.
- According to Woodworth attention basically explore everything and perception games knowledge about it.

From all these definitions we can conclude that attention is a selective mental activity of the focal consciousness, the center of consciousness where all the objects are more clear and more perceptible than the marginal conscious.

KINDS OF ATTENTION

- There are three kinds of attention
 - Active attention
 - Passive attention
 - Secondary passive attention

- **ACTIVE ATTENTION**

Active attention is voluntary attention. It requires our will, intention and self-interest to be determined to accomplish a certain task. For example, reading a book and listening to a lecture while operating a machine requires active attention. Active attention occupies conscious struggle which can be used by the higher animals and humans only.

- **PASSIVE ATTENTION**

Attention is involuntary attention; it does not require intention; it is automatically activated by some powerful property of stimuli. For example a loud sound of drum beating with high power of eliminating light gets us attention without our intentions.

- **SECONDARY PASSIVE ATTENTION**

Secondary passive attention is active in the beginning and becomes passive after sometime. For example driving a car needs active attention at the part of new learner but after a due course of practice driving becomes an easy job for the expert driver and he requires passive attention.

Another example is that when hear a drum beating sound you may get some passive attention but if you are not interested in listening the drum beating then automatically it will become secondary passive attention.

CONDITIONS OF ATTENTION

- Because our factors which draw our attention are called conditions of attention there are two types of regions of attention.
 - Objective conditions of attention
 - Subjective conditions of attention.

OBJECTIVE CONDITIONS OF ATTENTION

- **Intensity** pertains to strength of a stimulus an object of more intensity draws a person the tension more easily than a weaker stimulus for example , a loud noise is more stable than the Whisper; a bulb of a hundred power makes things more visible than the zero power bulb.
- **Extensity** pertains to the expansion of a stimulus a big object draw attention sooner than the smaller as the advertisements in broadest peace in the newspaper are attended more easily and sooner than classified small advertisements.
- **Striking quality** of an object is looking different from the common objects bright colours among dull colours objects words in Italic from

among the simple formats.

- A **Movement** in a still post object draws attention abruptly for example we are inattentive two birds but a bird flapping its feeder and Wings to fly attracts attention and similarly a v phenomena of a Apparent movement of still lives because of our attention.
- **Novelty** An eccentric are strange newness of an object becomes more attractive than old fashion.
- Any **change** in the habitable **environment** attract our attention easily for example , an alarm of a clock is a sudden closing of Tik Tok of the clock that attracts our attention.
- **Repeated** action becomes a center of attention.
- **Contrast** between two objects does the tension sooner than the similarity black and white big and small are dark and light.
- **Distinct quality** is an other condition of attention by which an object is required for that and ability of a thing.

SUBJECTIVE CONDITIONS OF ATTENTION

- An attention is a mental process it is affected by the mental and physical state of the subject the condition relating to the subject physical mental state are called subjective conditions which may be enumerated as follows.
- **Interest, aptitude, motive, expectancy, knowledge and experience, emotional state and temperament** and personal attitudes are key conditions of attention in the context of a subject.

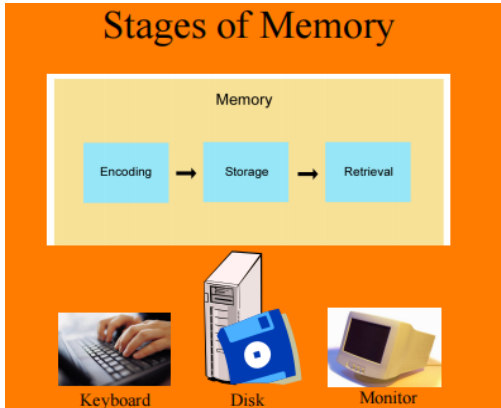
Functioning of Human Memory

Memory is *any indication* that learning has persisted over time. It is our ability to store and retrieve information.

The study of human memory since ages has been a topic of interest for the school of cognitive psychology. Human memories of all individuals can never be the same. Human memory refers to a process of acquisition, storage, retention and retrieval of information. Human memory has the ability to store and recall the previously learnt information, but the functions performed by human memory may not be free from flaws because of forgetfulness or other memory disorders. Memory disorders resulting from diseases can affect the quality of life and the overall cognitive abilities of an individual.

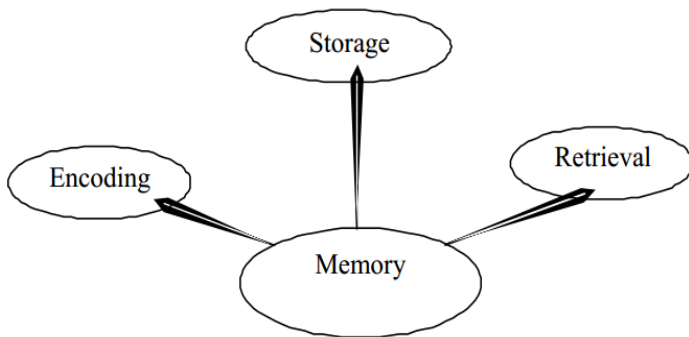
In Psychology, Human memory follows three stages:

1. **Encoding** (Registration) stage: This is the first stage of human memory which is about processing the information which is received and collating the same. It is with the process of encoding, the human brain receives the information from the external world through sensory organs which are transmitted in the form of physical and chemical stimuli. During this stage, the information is changed into a usable or a meaningful form.
2. **Storing**: In this second stage, information is stored in the human memory for a very long period of time. A permanent record of information is created in the human memory as a result of encoding.
3. **Retrieval** (Recalling or Recognizing): In this stage, information can be recalled or retrieved as per the requirement of the situation or in response to a given cue. The stored information is recalled or extracted into our conscious awareness.



Problems may take place in any stage of this process. Distractions hamper the process of encoding or extraction of information from the external world. Issues may take place even during the stages of storage and retrieval.

Human memories can either last for a very brief period, may be just for few seconds, or may last for a short term period, while some memories last for a very long time period may be weeks, months or even several years altogether, which usually remain out of our conscious level of awareness and can be brought back to the



conscious awareness whenever required. The encoded information can be put to a meaningful use by passing through a process of retrieval. Factors which influence the retrieval process of memory are types of information which are being used and the cues which are available for retrieving the information.

The Stage Model of memory as propounded by Atkinson and Shiffrin in 1968

The stage model of memory is considered to be the major study which attempts to explain the functioning of human memory. This theory demarcates three different stages of human memory: sensory memory, short term and long term memory.

1. **Sensory Memory:** This is the first stage of memory that stores the information extracted from the external environment for a very brief period of time, approximately for less than a second for visual information and for 3 to 4 seconds in case of auditory information.

Sensory memory cannot be controlled by our conscious awareness and is not involved in our higher level cognitive functions.

2. **Short-Term Memory:** This is also called Active Memory, as it deals with the information which is fresh on our mind, about which we are currently thinking and have awareness. As per the Freudian Psychology, this kind of memory is referred to as conscious mind. The memory stored in the Short Term Memory (STM) will stay for approximately 20 to 30 seconds and then it moves on to the next stage that is Long Term Memory if not forgotten. Short Term Memory is capable of holding only a few items and that too for a very brief period of time. The information or the items can be moved from the Short Term Memory to Long Term Memory via a process which is called rehearsal. Example of rehearsal could be when someone shares the phone number and you keep repeating it to yourself until you find something suitable to note it down somewhere. During this period, if someone interrupts by asking some question while you are rehearsing, you might forget the number because it was held in the STM.
3. **Long Term Memory:** As per the Freudian Psychology, Long term Memory is related to unconscious or preconscious. In this stage, the information storage process takes place on a continuous basis. The information which is stored in the Long Term Memory (LTM), usually remains out of our awareness, but can be recalled back to the working memory whenever needed. Long Term Memories have an incredible storage capacity like some memories remain stored in our mind for our entire lifetime from the time it was created. Long Term Memory can be of various types:
 1. **Declarative or Explicit Memory:** This kind of memory is stored in the conscious mind and will require a conscious recall. Explicit memory is further categorized into semantic memory (For

example, the capital of France is Paris, which is contextual information) and episodic memory which is in the form of personal experiences (example: I could see Monalisa, while being in Paris).

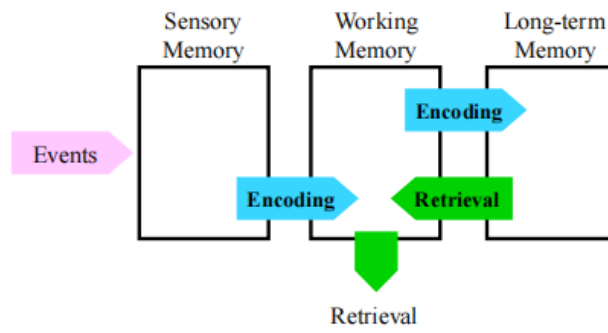
2. **Procedural/Implicit Memory:** Procedural or implicit memory is not based on conscious storage of information or information retrieval, but it is implicit in nature. This kind of memory is put to use for acquiring new motor skills. Some of the examples of implicit memory are learning bike riding, as one does not remember consciously how to ride a bike, but it happens on its own.
3. **Semantic Memory :** Storehouse for facts and general knowledge about the world e.g., historical facts, or scientific formulae.
4. **Episodic Memory :** Memory for information pertaining to life events, episodes, biographical details.
5. **Associative Module :** A strategy or process whereby material is recalled by thinking about related information e.g., whose son was the Mughal Emperor "Shah Jehan"

How Memory Organizes the Information?

Memory **organizes** related information in **grouped** by way of a process called clustering. Clustering involves categorization or grouping of information which is quite similar in nature, as it facilitates **convenience in retrieval** as well as **recall** of the information. Another method by way of which information can be organized and recalled is semantic network model. As per this model certain experiences trigger our previous associated or related memories. The sight of a specific location might trigger the past memories which must have been associated or related with that location.

Storage: Retaining Information

Storage is at the heart of memory. Three stores of memory are shown below:



WHAT IS PERSONALITY?

- Personality is derived from **Latin words "per" and "Snare"** that means **"sound through"** and from two **Greek words "Persona"** which means **veil or mask**.
- The literal meaning of persona helps the **behaviorists** to define personality as an **exhibitory aspect of an individual**.
- Watson defines personality as **an exhibit of behaviors** achieved as a system of **habits to conditioned learning** for making **adjustments** in the environment.
- **William** defines personality as a system of **innate natures** and **inherited qualities referring** to the individual's **internal capacities**.
- **Woodworth** define personality as sum **of total of traits**(characteristics)
- **Child** personality consists of the more or less **stable internal factors** that make one person **consistent** from one time to another in comparable situations.
- Having an overview of all the above mentioned definitions, we can conclude that personality is a **total action of the Mind-body** system determined by the **interaction of heredity** and **environment, mental attributes such as interest, abilities, attitudes and feelings**.
- It is the study of individuals with special emphasis on **what makes a person unique**.

TYPES OF PERSONALITY

There are two main types of behaviors are personality

Extrovert or introvert.

The traits of extraversion and introversion are a central dimension in some human personality theories.

Most people believe that an extrovert is a person who is friendly and outgoing.

An extrovert is a person who is energized by being around other

people. ہو زیادہ دلچسپی رکھتا ہے چیزوں کی باہر و بشخص جو.

Introvert (شرميال) a person who tends to shrink from social contacts and to become preoccupied with their own thoughts.

You were either an introvert or an extrovert. ...

An **ambivert** is someone who displays classic traits of both introverts and extroverts, in **specific Situations**.

PERSONALITY STRATEGIES

According to **trait theorists** there are two strategies to describe personality.

- **Nomothetic approach** based on comparison of a person with others on various dimensions of personality.
- **Idiographic approach** based on the organization of personality traits telling his most outstanding or the central trait which shapes his individuality.
- **Scientific and quantitative measurement** is required to describe the traits .