Brainstorming Questions

- What comes to your mind when you hear about the word psychology?

1.1. Definition of Psychology and Related Concepts

- The word "psychology" is derived from two Greek words *'**psyche**'* and ***logos***“.
- ***Psyche*** refers to mind, soul or sprit while ***logos*** means study, knowledge or discourse. Therefore,
- epistemologically refers to the study of the mind, soul, or sprit.
- Psychologists define psychology differently based on their intentions, research findings, and background experiences.

1.1. Definition of Psychology and Related Concepts

- The most agreed up on definition of Psychology is the scientific study of human behavior and mental processes.
- From the definition of Psychology we can understand that,

a. Psychology is a science

- This means psychologists use scientific procedures and empirical data to study behavior and mental processes rather than commonsense.

b. It studies behavior

- Behavior refers to all of our outward or overt actions and reactions, such as talking, facial expressions, movement, etc.

c. It studies mental processes

- It is hidden, non-observable which refer to all the internal, covert activities of our minds, such as thinking, feeling, remembering, etc.

1.2. Goals of Psychology

Brainstorming Questions

- Dear student, why do you think is psychology important?
- What do you think a psychologist is doing when studying behavior and mental processes?

1.2. Goals of Psychology

- As a science, psychology has four goals namely

1. Description,
2. explanation,
3. prediction, and
4. Controlling/Improving

1. Description

- It involves observing the behavior and noticing everything about it.
- It is a search for answers for questions like What is happening?‘ Where does it happen?‘
- To whom does it happen?‘ And under what circumstances does it seem to happen?

2. Explanation

- Why is it happening? Explanation is about trying to find reasons for the observed behavior.
- This helps in the process of forming theories of behavior.
- A theory is a general explanation of a set of observations or facts.

3. Prediction

- It is about determining what will happen in the future. Having information at hand, psychologists can prognosticate(predict) the trend of a behavior in the future

4. Controlling/Improving

- How can it be changed? The aim here is changing or modifying behavior from undesirable one to a desirable one.

1.3.Historical Background and Major Perspectives in Psychology

- Psychology began as a science of its own in 1879 in Germany, with the establishment of a psychology laboratory in the University of Leipzig by Wilhelm Wundt. He was the founder or "father of modern psychology”.

1.3.Historical Background and Major Perspectives in Psychology

- Once psychology begun to use the scientific method, it then went through successive developments in which different schools of thought emerged at different times.
- These schools of thought can be categorized as

a. Old or Early schools of thought

b. Modern schools of thought .

1.3.1. Early schools of psychology

- A school of thought is a system of thinking about a certain issue, say, for example, about human behavior or mind.
- You may, for example, think that human behavior is all the result of inheritance, or you, may, instead, say it is all the result of interaction with the environment.
- The first system of thinking takes a biological approach and the later takes an environmental approach.

1.3.1. Early schools of psychology

- There are five such early schools of psychology

1. Structuralism

- It views psychology as a study of structure of mind.
- The goal of structuralists was to find out the units or elements, which make up the mind such as; sensations, images, and feelings.
- It was concerned with discovering the structure of mind.

1.3.1. Early schools of psychology

- There are five such early schools of psychology

2. Functionalism

- Analyzing mental structure alone was found to serve little purpose in helping humans deal with the environment.
- Hence, a new school of thought emerged to study this functional value of human mind was Functionalism.
- It seeks to understand why our bodies behave as they do.

2. Functionalism

- It was concerned with discovering how the mind works. It focused on how the mind allows people to function in the real world; how people work, play, and adapt to their surroundings.
- Generally, according to functionalists, psychological processes are adaptive. They allow humans to survive and to adapt successfully to their surroundings.

1.3.1. Early schools of psychology

- It believed that human mind is more than the sum of sensations as well as adaptive functions.
- Hence, a new school of thought was emerged to examine mind in a holistic manner-Gestalt Psychology.
- 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.

3. Gestalt psychology

- 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.
- They held that "the whole is greater than the sum of its parts. It means mind is greater than its parts (images, sensations, and feelings).

3. Gestalt psychology

- Generally what is common to all the three schools of thought is the fact that they all try to examine the human mind; which is an internal, no-visible, and hidden experience of human beings.

4. **Behaviorism**

- For psychology to become scientific, it needs to get rid of dealing with subjectivity in all its forms and rather focus on studying behavior.
- Behaviorists view psychology as a study of observable and measurable behaviors.
- It believed that all behaviors are learned but not inherited.

1.3.1. Early schools of psychology

- All the four schools of thought discussed so far were focusing on

a. human mind and

b. behavior as conscious experiences.

1.3.1. Early schools of psychology

- But, an opposition to this assertion came from a physician in Vienna who, after working with so many patients, realized that human functioning was basically explained by more powerful forces which were not accessible to our consciousness.
- Hence, this lead to the formulation of a new school of thought in psychology called **Psychoanalysis.**

5. **Psychoanalysis**

- According to Psychoanalysis psychology studies about the components of the unconscious part of the human mind.
- Freud became convinced that some of the physical illnesses of his patients didn‘t have bodily medical causes; but non – physical or or emotional causes. (Emotional problems into bodily problems)

5. **Psychoanalysis**

- He also underscored that that conflicts and emotional traumas that had occurred in early childhood can be too threatening to be remembered consciously and therefore they become hidden or unconscious and then will remain to affect later behavior.

5. **Psychoanalysis**

- Freud argued the unconscious which is the subject matter of psychoanalysis contains hidden wishes, passions, guilty secrets, unspeakable yearnings, and conflict between desire and duty.

Modern schools of psychology

The early schools of thought have generally:

- Laid the foundation for further developments in psychology as a science.
- Opened a door for taking multiple perspectives in explaining human behavior and mental processes.

1. Psychodynamic perspective

- The psychodynamic approach emphasizes:
  - The influence of unconscious mental behavior on everyday behavior.
  - The role of childhood experiences in shaping adult personality.
  - The role of intrapersonal conflict in determining human behavior.

1. Psychodynamic perspective

- The psychodynamic approach emphasizes:

- Psychodynamic perspective tries to dig below the surface of a person's behavior to get into unconscious motives.

- Psychodynamists think of themselves as archaeologists of the mind.

2. **Behavioral Perspective**

- It emphasizes the role learning experiences play in shaping the behavior of an organism.
- It is concerned with how the environment affects the person‘s actions.
- The behavioral perspective is sometimes called the *"black box" approach in psychology.* This means, behaviorists are only interested in the effects of the environment (input) on behavior (output) but not in the process inside the box.

3. **Humanistic Perspective**

- According to this perspective, human behavior is not determined either by unconscious dynamics or the environment.
- Rather it emphasizes the uniqueness of human beings and focuses on human values and subjective experiences.

3. **Humanistic Perspective**

- 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).

4. 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.

5. Biological Perspective

- It focuses on studying how bodily events or functioning of the body affects behavior, feelings, and thoughts.
- It holds that the brain and the various brain chemicals affect psychological processes such as learning, performance, perception of reality, the experience of emotions, etc.

5. Biological Perspective

- This perspective underscores that biology and behavior interact in a complex way; biology affecting behavior and behavior in turn affecting biology

6. Socio-cultural Perspective

- It focuses on the social and cultural factors that affect human behavior.
- Cultural psychologists also examine how cultural rules and values (both explicit and unspoken) affect people's development, behavior, and feelings.
- This perspective holds that humans are both the products and the producers of culture, and our behavior always occurs in some cultural contexts.

- **Developmental psychology**–It studies the physical, cognitive and psychological changes across the life span. It attempts to examine the major developmental milestones that occur at different stages of 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.

Social Psychology

- It deals with people‘s social interactions, relationships, social perception, and attitudes.

Cross-cultural Psychology

- It 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.

Branches/Sub Fields of Psychology

- **Industrial psychology** – applies psychological principles in industries and organizations to increase the productivity of that organization.
- **Forensic psychology -** applies psychological principles to improve the legal system (police, testimony, etc..).
- **Educational Psychology -** concerned with the application of psychological principles and theories in improving the educational process including curriculum, teaching, and administration of academic programs.

Branches/Sub Fields of Psychology

- **Health Psychology -** applies psychological principles to the prevention and treatment of physical illness and diseases.
- **Clinical Psychology***:-*is a field that applies psychological principles to the prevention, diagnosis, and treatment of psychological disorders.
- **Counseling Psychology***:* **-** is a field having the same concern as clinical psychology but helps individuals with less severe problems than those treated by clinical psychologists.

Definition of terms

- ***Scientific method*** **-** a process of testing ideas through systematic observations, experimentations, and statistical analysis.
- ***Theory*** **-** is an integrated set of principles about observed facts that is intended to describe and explain some aspects of experience.

Definition of terms

- ***Hypotheses*** **-** is a tentative proposition about the relationship between two or more variables or phenomena. E.g. Males have high self **-** confidence in making decisions than females

Research Methods in Psychology

- Based on what psychologists do to achieve the different objectives and goals there are different types of research methods namely:

1. Descriptive research

- In this type of research, the researcher simply records what she/he has systematically observed.

Types of Descriptive research

Naturalistic observation

- In this method subjects are observed in their natural environment to get a real (not artificial) picture of how behavior occurs.

Types of Descriptive research

Naturalistic observation:

Limitations of naturalistic

- **Observer effect:** (animals or people who know they are being watched may behave artificially) and
- **Observer bias:** (the researcher may not observe systematically or he/she may observe behaviors he/she wants to observe and ignores others).

Types of Descriptive research

Case study

- By this technique an individual is studied in great detail.
- **Advantage**: It provides tremendous amount of data about a single case or individual.
- **Disadvantage**: The researchers can‘t apply the results to other similar people, which means what researchers find in one case can‘t necessarily apply or generalize to others.

Types of Descriptive research

Survey method

- It is used to collect data from a very large group of people.
- It is useful to get information on private (covert) behaviors and it addresses hundreds of people with the same questions at the same time.
- Disadvantage: It needs a careful selection of a representative sample of the actual population.

Types of Descriptive research

2. Correlational research

- **It** measures the relationship between two or more variables.
- A variable is anything that can change or vary –scores on a test, the temperature in a room, gender, and so on.
- For example, a researcher might be curious to know whether or not cigarette smoking is connected to life expectancy.

Types of Descriptive research

2. Correlational research

- Correlational research tell us a relationship between variables, how strong the relationship is, and in what direction the relationship goes. However, it doesn‘t prove causation (which means it doesn‘t show the cause and effect relationship).
- For example, if there is a relationship between smoking and lung cancer, this doesn‘t mean that smoking causes lung cancer.

Types of Descriptive research

3. Experimental Research

- It studies the **cause and effect relationship** between variables.
- In experimental research, a carefully regulated procedure in which one or more factors believed to influence the behavior being studied are manipulated and all other factors are held constant.

Types of Descriptive research

3. Experimental Research

- Experiments involve at least one independent variable and one dependent variable.
- **Independent variable: It** is the manipulated, influential, experimental factor.
- **Dependent variable: It** is the factor (behavior) that is measured in an experiment. It can change as the independent variable is manipulated.

Types of Descriptive research

3. Experimental Research

- For example the effect of small class size on students‘ academic performance.
- Based on this there are two variables namely

1. class size: It is independent variable.
2. Students performance : It is dependent variable.

Types of Descriptive research

3. Experimental Research

- Although experimental research is useful to discover causes of behaviors, such research must be done cautiously because expectations and biases on the part of both the researcher and participants can affect the results.

Steps of scientific research

Step one - Defining the Problem

- For example, you may notice that children seem to get a little more aggressive with each other after watching practically violent children‘s cartoon videos.
- You wonder if the violence in the cartoon video could be creating aggressive behavior on the children.
- Hence, you may raise a research problem focusing on the effect of aggressive videos on children‘s behavior.

Steps of scientific research

Step two - Formulating the Hypothesis

- After having an observation on surroundings (perceiving the problem), you might form an educated guess about the explanation for your observations, putting it into the form of a statement that can be tested in some way.
- In above example: you might formulate a hypothesis which says children who watch violent cartoons will become more aggressive than those who watch non-violent cartoons.

Steps of scientific research

Step three - Testing the Hypothesis

- At this step, the researcher employs appropriate research methods and collects ample data (information) to accept or reject the proposed statement.

Steps of scientific research

Step three - Testing the Hypothesis

- For instance, in the above example, the data will be gathered from children who watch aggressive videos and from those who do not watch aggressive videos and make comparisons between the behaviors of the two groups to determine whether watching aggressive video makes children more aggressive.

Steps of scientific research

Step four - Drawing Conclusions

- This is the step in which the researcher attempts to make generalizations or draw implications from tested relationship

Steps of scientific research

Step five - Reporting Results

- At this point, the researcher would want to write up exactly what she/he did, why she/he did, and what she/he found. So that, others can learn from what she/he has already accomplished, or failed to accomplish.
- This allows others to predict and modify behavior based on the findings.