

1. Details of Module and its structure

| Module Detail | |
|-------------------|---|
| Subject Name | Psychology |
| Course Name | Psychology 01 (Class XI, Semester - 1) |
| Module Name/Title | What is Psychology? – Part 1 |
| Module Id | key_10101 |
| Pre-requisites | Basic knowledge of Notepad, Pen, Laptop, WIFI |
| Objectives | After going through this lesson, the learners will be able to understand the following: <ul style="list-style-type: none">• What is Psychology• Psychology as a discipline• Psychology as a natural science• Psychology as a social science• Understanding mind and behavior• Popular notions about the discipline |
| Keywords | Natural Science , Social Science, Schools of Psychology |

2. Development Team

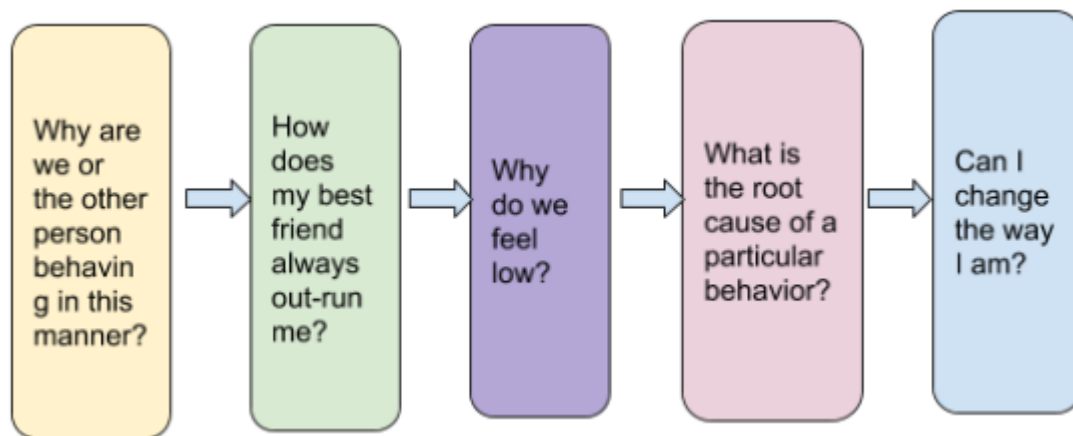
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Introduction

All of us at one point of time get curious and tend to have a feeling within ourselves as to



Answer to all these questions can be figured out while understanding the concept of psychology.

Now if I ask why students opted for psychology over other subjects? Generally responses to these questions are truly bewildering but mostly students give responses such like they want to know what others are thinking?

But then, one also comes across such responses as knowing oneself, knowing others or knowing more specific responses like knowing why people dream, why people go out of their way to help others or beat each other up.

The most common question arises as to why people are generally unhappy? What changes should they bring about in themselves if they desire happiness in their lives? All this could be answered by understanding psychology as a science, psychology as a discipline.

Psychology is basically the study of human mind and human behavior which in turns works on the phenomenon of stimulus and response. Every behavior has a response attached to it. Let us have a deep insight over the concept of psychology while understanding its various field, disciplines and branches along with its evolution.

What is Psychology?

Defination

Psychology is defined formally as a science which studies mental processes, experiences and behavior in different contexts.

Studies mental processes, experiences and behavior.

Study of human mind and behavior.

It means a science or the study of subject.

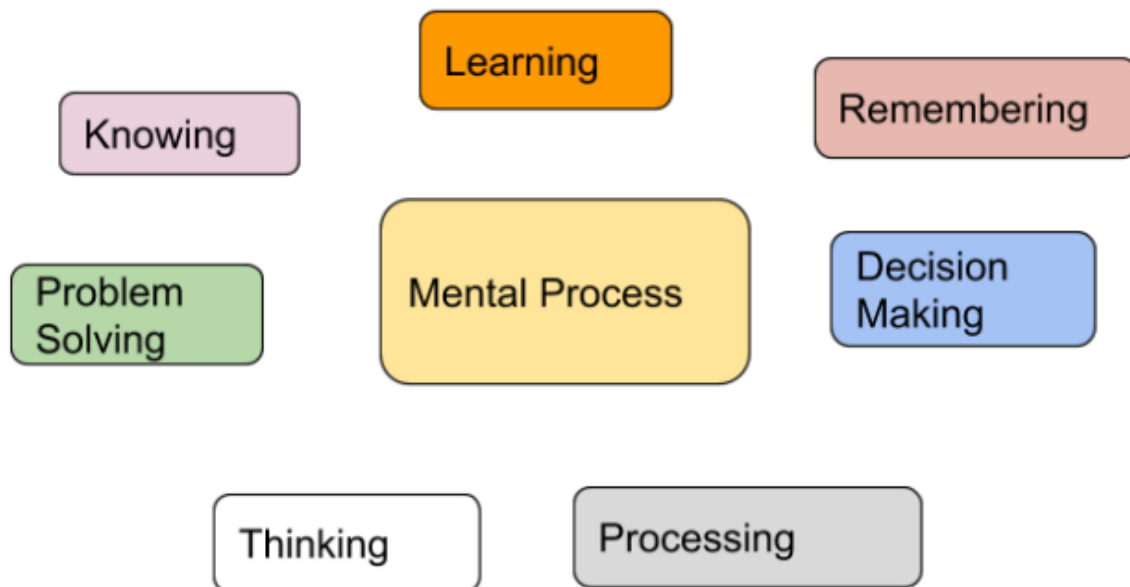
Concept of Behavior, Experience and Mental Processes.

- Nature of experience can only be understood by analyzing a complex set of internal and external conditions
- Behavior is the response or reactions that are made or the activities in which people are engaged in.
- Overt and covert behavior are associated with some stimulus in the environment or changes that happen internally.

MENTAL PROCESSES

- We use our mental processes when we think or try to solve a problem, to know or remember something.
- One level at which these mental processes are reflected is the brain activity. As we think or solve a mathematical problem, our brain activities can be observed using different techniques of brain imaging.
- However, we cannot say that brain activities and mental processes are the same, although they are interdependent.
- Mental activities and neural activities are mutually overlapping processes but, they are not identical.

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- Unlike the brain, the mind does not have a physical structure or has a location. Mind emerges and evolves as our interactions and experiences in this world get dynamically organised in the form of a system which is responsible for the occurrence of various mental processes.
 - Brain activities provide important clues to how our mind functions. But the consciousness of our own experiences and mental processes are much more than the neural or brain activities. Even when we are asleep some mental activities go on.



Experiences

- Experiences are subjective in nature. We cannot directly observe or know someone else's experience. Only the experiencing person can be aware or be conscious of her or his experiences.
- Thus, experiences are embedded in our awareness or consciousness. Psychologists have focused on experiences of pain being undergone by terminally ill patients or of psychological pain felt in bereavement, besides experiences which lead to positive feelings, such as in romantic encounters.

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- Experiences are influenced by internal and the external conditions of the experiencer. If you are travelling in a crowded bus during a hot summer day, you may not experience the usual discomfort if you are going for a picnic with some close friends

Behaviour

- Are responses or reactions we make or activities we engage in. When something is hurled at you, your eyes blink in a simple reflex action. You are taking an examination and can feel your heart pounding.
- You decide to go for a particular movie with a friend. Behaviours may be simple or complex, short or enduring. Some behaviors are overt. They can be outwardly seen or sensed by an observer.
- Some are internal or covert. When you are in a difficult situation while playing a game of chess you almost feel your hand muscles twitching, trying to experiment with a move. All behaviors, covert or overt, are associated with or triggered by some stimulus in the environment or changes that happen internally.

Consists of OVERT
(EXTERNAL) & COVERT
(INTERNAL) behavior

These are
simple/complex
behaviours

Behaviours can be short or
enduring in nature

Examples

Behaviors are responses or reactions we make or activities we engage in.

Examples of overt behavior:

- Blinking of eyes when a something is hurled at a person.
- withdrawing the hand immediately after touching a hot pan.

Examples of covert behavior:

- The twitching of hand muscles while playing a game of chess.
- pounding of heart during an interview.

Relationship Between Mind and Behavior

- For many decades, the mind remained a taboo in psychology because it could not be defined in concrete behavioural terms or its location could not be indicated. If the term “mind” has returned to psychology, we should thank neuroscientists like Sperry and physicists like Penrose, who have given it the respect which it deserved and now has.
- There are scientists in various disciplines including psychology, who think that a unified theory of the mind is a possibility, although it still is far away.

What is Mind?

The element of a person that enables them to be aware of the world and their experiences, to think, and to feel; the faculty of consciousness and thought.

Levels of Mind

- [The conscious mind](#) includes everything that we are aware of. This is the aspect of our mental processing that we can think and talk about rationally.
- [The preconscious mind](#) is the part of the mind that represents ordinary memory. While we are not consciously aware of this information at any given time, we can retrieve it and pull it into consciousness when needed.

Recent studies in neuro science have established relationship between mind and behavior using:

- Positive Visualization
 - Techniques and feelings
 - Positive Emotions
- Recent studies in affective neuroscience have clearly shown that there is a relationship between mind and behaviour.
 - It has been shown that using positive visualisation techniques and feeling positive emotions, one can bring about significant changes in bodily processes.
 - Ornish has shown this in a number of studies with his patients. In these studies a person with blocked arteries was made to visualise that blood was flowing through her/ his

blocked arteries. After practicing this over a period of time, significant relief was obtained by these patients as the degree of blockage became significantly less.

- Use of mental imagery, i.e. images generated by a person in her/his mind, have been used to cure various kinds of phobias (irrational fears of objects and situations).
- A new discipline called Psychoneuroimmunology has emerged which emphasizes the role played by the mind in strengthening the immune system.

Psychology as a Discipline

- When we observe others as lay or common persons, our own points of view or our ways of understanding the world influence our interpretations of their behaviors and experiences.
- Psychologists try to minimize such biases in their explanations of behavior and experience in various ways. Some do so by seeking to make their analysis scientific and objective. Others seek to explain behavior from the point of view of the experiencing persons because they think that subjectivity is a necessary aspect of human experience. In the Indian tradition, self-reflection and analysis of our conscious experiences, is held to be a major source of psychological understanding.
- Many western psychologists have also begun to emphasize the role of self-reflection and self-knowledge in understanding human behavior and experience.
- Regardless of the differences in the way psychologists go about the study of behavior, mental processes and experiences, they seek to understand and explain them in a systematic and verifiable manner.
- There is a difference in approaching a common friend for an advice than a psychologist.

Psychologists is preferred because

- They reduce bias in explanation of behavior
- Involve scientific analysis
- Are trained professionals

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- Explain behavior, mental processes and experiences in a systematic and verifiable manner.
 - Psychology, though it is a very old knowledge discipline, is a young science, if one were to take the year of the founding of the first laboratory of psychology in 1879 in Leipzig.
 - However, what kind of science is psychology, still remains a matter of debate, particularly because of the new interfaces of it that have emerged in recent times.
 - Psychology is generally categorized as a social science. But it should not come to you as a surprise that, not only in other countries, but also in India, it is also a subject of study offered in the faculty of science, both at the undergraduate and post-graduate levels
 - In fact, two of the most sought after emerging disciplines which continuously borrow from psychology are Neuroscience and Computer Science. Some of us would be aware of the fast developing brain imaging techniques like fMRI, EEG, etc. which make it possible to study brain processes in real time, i.e. when they are actually taking place.
 - Similarly, in IT areas, both human-computer interaction and artificial intelligence cannot possibly grow without psychological knowledge in cognitive processes. Thus, psychology as a discipline today has two parallel streams.
 - One which makes use of the method in physical and biological sciences and the other which makes use of the method of social and cultural sciences in studying various psychological and social phenomena.
 - These streams sometimes converge only to drift apart and go their separate ways. In the first case, psychology considers itself as a discipline, which focuses largely on biological principles to explain human behavior.
 - It assumes that all behavioral phenomena have causes which can be discovered if we can collect data systematically under controlled conditions
 - Here the aim of the researcher is to know cause and effect relationship so that a prediction of the behavioral phenomenon can be made and behavior can be controlled if need be.
 - On the other hand, psychology as a social science focuses on how behavioral phenomena can be explained in terms of the interaction that takes place between the person and the sociocultural context of which s/he is a part. Each behavioral phenomenon is assumed to have multiple causes.

Summary

- The first laboratory in Psychology was opened in Leipzig in 1879.
- Psychology is considered both a science and a social science.
- Psychology is a science because of the physical and biological processes it considers.
- Psychology is a social science because it is embedded in the cultural and social contexts in which individuals are fabricated.
- Psychology as a natural science and as a social science, merge together and then drift apart yet run parallel to each other.
- Psychology also vastly borrows from neuroscience and computer science.

| Scientific psychology | Popular notion about psychology |
|---|---|
| It is based on scientific study of psychological phenomenon. | It uses common-sense knowledge to understand behaviour. |
| It explains the psychological phenomenon systematically on the basis of empirical data. | It explains the phenomenon on the basis of experiences, sayings or beliefs. |
| It studies the patterns of behaviour that can be predicted before they occur. | It explains events in hindsight after they occur. |

Psychology as a Natural Science

- Modern psychology has developed because of the application of the scientific method to study psychological phenomenon.
- Science places a great deal of emphasis on objectivity which can be obtained if there is consensus on the definition of a concept and how it can be measured.
- Psychology influenced by Descartes and later on by the developments in physics has grown by following what is called a hypothetico-deductive model.
- The model suggests that scientific advancement can take place if you have a theory to explain a phenomenon.
- For example, physicists have what is called a Big-bang theory to explain how the universe came to be formed.
- Theory is nothing else but a set of statements about how a certain complex phenomenon can be explained with the help of propositions which are interrelated.

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- Based on a theory, scientists deduce or propose a hypothesis that offers a tentative explanation of how a certain phenomenon takes place.
 - The hypothesis then is tested and proved true or false based on empirical data that one has gathered. The theory is revised if data gathered point in a different direction than the one suggested by the hypothesis.
 - Using the above approach psychologists have developed theories of learning, memory, attention, perception, motivation and emotion, etc. and have made significant progress.
 - Till date, most of the research in psychology follows this approach. Apart from this, psychologists have also been considerably influenced by the evolutionary approach which is dominant in biological sciences.
 - This approach has also been used to explain diverse kinds of psychological phenomenon such as attachment and aggression to mention just a few.

EXAMPLE - You might have noticed that some people act in a friendly and outgoing way while others appear to be shy and withdrawn. If you have made these types of observations then you are acting just like early psychologists who used behavior to draw inferences about various types of personality. By using behavioral measures and rating scales it is possible to measure thoughts and feelings. This is similar to how other researchers explore “invisible” phenomena such as the way that educators measure academic performance or economists measure quality of life.

Psychology as a Social Science

- We study human beings in their social-cultural context. Human create and get effected by their socio-cultural context.
- Our relationship with nature, experience & mental processes social and physical environment and culture effects our behaviours and thought process.
- We are what our environment makes us.
- Psychology deals with human behavior and experience in context of society and culture.

Example: Ranjita and Shabnam were in the same class. Although, they were in the same class, they were just acquainted with each other and their lives were quite different. Ranjita came from a farmer's family. Her grandparents, parents and elder brother worked on their farm. They lived together in their house in the village. Ranjita was a good athlete and was the best long distance runner in the school. She loved meeting people and making friends.

Unlike her, Shabnam lived with her mother in the same village. Her father worked in an office in a town nearby and came home during holidays. Shabnam was a good artist and loved staying home and taking care of her younger brother. She was shy and avoided meeting people.

Last year there was very heavy rain and the river nearby overflowed into the village. Many houses in the low lying areas were flooded. The villagers got together and organised help and gave shelter to people in distress. Shabnam's house was also flooded and she came to live in Ranjita's house with her mother and brother. Ranjita was happy helping the family and making them feel comfortable in her house. When the flood water receded, Ranjita's mother and grandmother helped Shabnam's mother to set-up their house. The two families became very close. Ranjita and Shabnam also became very good friends.

In this case of Ranjita and Shabnam, both are very different persons. They grew up in different families under complex social and cultural conditions. You can see some regularity in the relationship of their nature, experience and mental processes with their social and physical environment. But at the same time, there are variations in their behaviours and experiences which would be difficult to predict using the known psychological principles. One can understand why and how individuals in communities become quite helpful and self-sacrificing in crisis as was the case with the people in the village of Ranjita and Shabnam. But, even in that case, not every villager was equally helpful and also under similar circumstances not every community is so forthcoming; in fact, sometimes, the opposite is true – people become antisocial under similar circumstances indulging in looting and exploitation when some crisis occurs.

Above example form 11th psychology book, p.g. no. 5 & 6.

Understanding Mind and Behaviour

- Psychology began as the study of consciousness, and then turned to the study of observable behavior.
- Today, it is the science of both: behavior and mental processes. Thus, what psychology lost once (consciousness), it is gaining again with renewed vigor in the name of mental processes.
- The intersection between psychology and mind/brain/behavior is concerned with how mental capacities -- such as memory, perception, mental imagery, and language -- arise from brain function.
- Thus, studies in the Cognitive Science track involve studying mechanisms that ultimately produce cognition and behavior. Therefore, students and scholars in these areas study both the brain and behavior. The mind and behavior operate together and are constantly tangled with each other.
- Recent studies in affective neuroscience have clearly shown that there is a relationship between mind and behavior.
- It has been shown that using positive visualization techniques and feeling positive emotions, one can bring about significant changes in bodily processes.
- Ornish has shown this in a number of studies with his patients. In these studies a person with blocked arteries was made to visualize that blood was flowing through her/ his blocked arteries.
- After practicing this over a period of time, significant relief was obtained by these patients as the degree of blockage became significantly less.
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MIND consists of feeling, thinking, cognition

BEHAVIOUR consists of action, verbal and non verbal gestures/communication

BRAIN transmits information as a when received, produces neurotransmitters effectively

Example – Watching a horror movie.

MIND – produces feelings of fear, anxiety and thrill.

BEHAVIOUR – we cuddle the cushion near us, bite our nails

BRAIN – gives us sweaty palms, increased heartbeat, cold fingertips, goose pimples etc

Popular Notions about the Discipline

- Through experiences with everyday life, most of us have developed our own theory of human behavior. If we want some worker to perform better than s/he has in the past, we know that we will need to push her/him. Such popular theories of human behavior based on common sense may or may not be true if investigated scientifically. In fact, you will find that common sensical explanations of human behavior are based on hindsight and explain very little.
- For example, if a friend you love goes away to a distant place, what will happen to your attraction for her/him? There are two sayings which you may recall to answer this question. One of them is “Out of sight, out of mind”. The second one is “Distance makes the heart grow fonder”. Both of them make opposite statements, so which one is true. The explanation you choose will depend on what happens in your life after your friend leaves.
- Suppose you are able to find a new friend, the saying “Out of sight, out of mind” will be used by you or others to explain your behavior. If you are unable to find a new friend, you will keep remembering your friend fondly. In this case, the saying “Distance makes the heart grow fonder” will explain your behavior. Notice that in both cases the explanation follows the occurrence of behavior.
- Common sense is based on hindsight. Psychology as a science looks for patterns of behavior which can be predicted and not explained after the behavior occurs. Scientific knowledge generated by psychology often runs against common sense.

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- There are many other common sense notions which you may not find to be true. Not too long ago it was believed in some cultures that men are more intelligent than women or women cause more accidents than men. Empirical studies have shown that both of these are untrue.
 - Common sense also tells us that one is not able to give ones best if you are asked to perform before a large audience.
 - Psychological studies have shown that if you have practiced well, you may actually perform better because the presence of others helps your performance. It is hoped that as you go through this textbook you will discover that many of your beliefs and understanding of human behavior will change.
 - You will also gather that psychologists are different from astrologers, tantriks and palm readers because they systematically examine propositions based on data to develop principles about human behavior and other psychological phenomena.