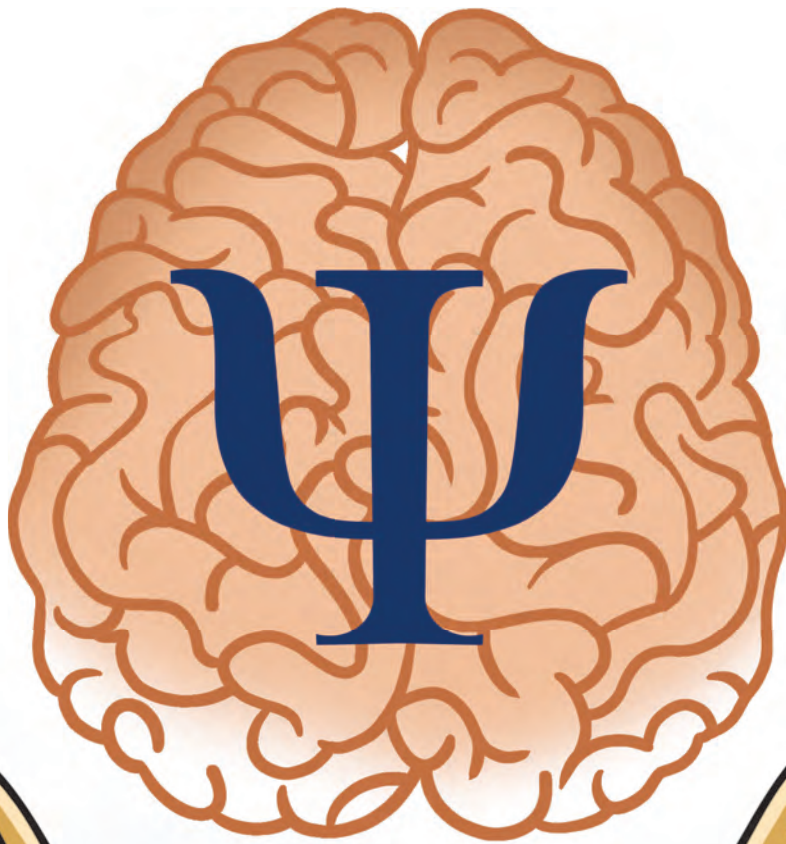




# PSYCHOLOGY

STANDARD TWELVE



# The Constitution of India

## Chapter IV A

### Fundamental Duties

#### ARTICLE 51A

**Fundamental Duties- It shall be the duty of every citizen of India—**

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities, to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers and wild life and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;
- (k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.

The Coordination Committee formed by GR No. Abhyas - 2116/(Pra.Kra.43/16) SD - 4  
Dated 25.4.2016 has given approval to prescribe this textbook in its meeting held on 30.1.2020 and it has been  
decided to implement it from academic year 2020-21.

# Psychology

## STANDARD TWELVE



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2020

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## **The Constitution of India**

### **Preamble**

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens :

JUSTICE, social, economic and political;  
LIBERTY of thought, expression, belief, faith and worship ;

EQUALITY of status and of opportunity;  
and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation ;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

## NATIONAL ANTHEM

Jana-gana-mana-adhināyaka jaya hē  
Bhārata-bhāgya-vidhātā,

Panjāba-Sindhu-Gujarāta-Marāthā  
Drāvida-Utkala-Banga

Vindhya-Himāchala-Yamunā-Gangā  
uchchala-jaladhi-taranga

Tava subha nāmē jāgē, tava subha āsisa māgē,  
gāhē tava jaya-gāthā,

Jana-gana-mangala-dāyaka jaya hē  
Bhārata-bhāgya-vidhātā,

Jaya hē, Jaya hē, Jaya hē,  
Jaya jaya jaya, jaya hē.

## PLEDGE

India is my country. All Indians  
are my brothers and sisters.

I love my country, and I am proud  
of its rich and varied heritage. I shall  
always strive to be worthy of it.

I shall give my parents, teachers  
and all elders respect, and treat  
everyone with courtesy.

To my country and my people,  
I pledge my devotion. In their  
well-being and prosperity alone lies  
my happiness.

## Preface

Dear Students,

Welcome to the twelfth standard. We are extremely glad to place this Psychology textbook in your hands as you take your steps towards higher secondary education.

Psychology is primarily a study of the human mind, brain and behaviour. Whenever a person engages in any act or thought, what exactly happens in his/her brain? In a given situation, why does one individual behave differently from another? How do emotions and thoughts affect human behaviour? What leads to the development of mental illness? What are some of the reasons and remedies behind mental illnesses? These are some of the questions that Psychology tries to answer. Every individual feels the need for guidance, advice at some stage in his/her life. Also the stressful lifestyle of our times creates many problems for us. In these times, a Psychologist or a counsellor or a guide can empower people to deal with these challenges. Currently, the field of Psychology has many different career opportunities.

Even if Psychology is classified under social sciences, it comes close to the basic Sciences in many ways. Case studies and surveys are emphasised in Psychology. The counselling process changes with every individual case and the issues concerned. The study of Psychology involves both - theory and practical. Conducting surveys, practical hands-on experience through internships, completing research projects is also a part of studying Psychology. Psychological tests, theories, mental illnesses and remedies, research methodologies are some of the topics to be studied.

Since you have been already introduced to this subject this textbook has been designed to provide more clarity about the scope of the field of Psychology. You will be required to complete different activities as part of the course. We urge you to complete these activities with sincerity. They will certainly help you to achieve a deeper understanding of the concepts.

The textbook also includes plenty of small tasks. These tasks are designed to stimulate your thought process. Carefully complete all the tasks. Seek help from your teachers, parents and peers whenever necessary. You are of course very well versed with the use of smartphones and computers. You can use QR Code given in the textbook and other resources available online to supplement the textbook.

Let us know your feedback about the textbook - especially the parts that you liked the most or the ones you found difficult to understand.

Wish you all the best for your future !



**(Vivek Gosavi)**

**Director**

Pune

Date: 21 February 2020

Bhartiya Saur : 2 Phalguna 1941

Maharashtra State Bureau of Textbook  
Production and Curriculum Research, Pune

## Statement of Learning objectives : Psychology

Sr. No	Units	Learning Objectives
1.	Psychology : A Scientific Discipline	<ul style="list-style-type: none"> <li>To acquire knowledge on the history of psychology as a science.</li> <li>To know about the various research methods and their key features.</li> <li>To understand and explain the major challenges in establishing psychology as a science.</li> <li>To understand the term Rationality and characteristics of a rational person.</li> </ul>
2.	Intelligence	<ul style="list-style-type: none"> <li>To summarise and describe the perspectives on Intelligence and demonstrate an understanding of the History of Measurement of Intelligence.</li> <li>To categorize the different types of Intelligence tests.</li> <li>To develop an understanding on the usefulness of Intelligence testing and its application.</li> <li>To evaluate the New trends in intelligence eg Social, Emotional and Artificial intelligence and apply its importance in daily life.</li> </ul>
3.	Personality	<ul style="list-style-type: none"> <li>To illustrate an understanding of the concept of personality.</li> <li>To assess and describe the various factors affecting personality.</li> <li>To analyse and explain the various perspectives of studying personality.</li> <li>To evaluate and explain the various techniques of measuring personality.</li> </ul>
4.	Cognitive Processes	<ul style="list-style-type: none"> <li>To analyse the various aspects of attention and formulate own examples for better understanding.</li> <li>To illustrate an understanding of the phenomenon associated with perception.</li> <li>To analyse and explain the various stages in the process of problem solving and creative thinking.</li> <li>To summarise and elaborate the various processes of learning.</li> </ul>
5.	Emotions	<ul style="list-style-type: none"> <li>To understand the historical basis of the theories of emotions.</li> <li>To create an awareness of basic emotions with emphasis to the Plutchik's model.</li> <li>To highlight the physiological changes during emotions and the importance of emotional well-being.</li> <li>To acquaint students with the various techniques of managing their emotions with reference to anger management and apply the same to their life.</li> </ul>
6.	Psychological Disorders	<ul style="list-style-type: none"> <li>To understand and evaluate the nature of psychological disorders.</li> <li>To illustrate an indepth understanding of the term Mental Wellness and its various aspects.</li> <li>To classify the various Mental disorders and understand its symptoms as per DSM-5.</li> <li>To understand the various symptoms for identifying and treating psychological disorders.</li> </ul>
7.	First Aid in Mental Health	<ul style="list-style-type: none"> <li>To sensitize students to mental health issues.</li> <li>To make students aware of the signs and symptoms of various mental illnesses.</li> <li>To acquaint students with various first aid techniques for mental health issues</li> <li>To increase students awareness about the importance of mental health professional.</li> </ul>
8.	Positive Psychology	<ul style="list-style-type: none"> <li>To develop an understanding about positive psychology as an emerging branch of psychology.</li> <li>To relate and understand positive emotions and apply key elements in day to day life.</li> <li>To discuss the determinants of happiness and choose to adopt the same to enhance happiness.</li> <li>To develop an understanding and explain methods to promote empathy, mindfulness meditation and the 7 C's of Resilience and nurture it in day to day life functioning.</li> </ul>

## For Teachers

Dear Teachers,

• We have been given the opportunity to introduce the subject Psychology to the twelfth standard. This text book has been designed to fulfil the following objectives –

1. Students should understand why is Psychology classified as a branch of Science.
2. Students should understand how are matters concerning our daily life studied under this subject.
3. Students should understand the concept of 'self', how it applies to them personally and how could it be developed.
4. Students should be able to apply the techniques which they learn in this course in their day-to-day life, for instance mental health first aid techniques and key features of positive psychology-
5. Students should feel motivated to pursue higher education in the field of Psychology and make a career for themselves.

To enable us as teachers to achieve the above mentioned objectives, we must keep in mind few important points.

- We must ourselves go through and study the entire textbook.
- The main aim of the textbook for 11th and 12th standards, is introduction to Psychology. Therefore, the syllabus is divided into four core themes.
  1. History and scope of Psychology
  2. The concept of self
  3. Mental health
  4. The Nervous System: structure, function and relevance to everyday life experience.
- The book is so organised that the foundation of these themes is laid in eleventh standard whereas the themes are explored in greater details in twelfth standard. Aforementioned four themes would remain same in both the years.
- Concepts like Attention, Perception, Thinking and Learning have been introduced in this book. Upcoming concepts like Positive Psychology and Mental Health First Aid also have been included in standard 12th book. The Teacher will have to take extra effort and gather indepth knowledge to be able to teach those chapters effectively. The chapter on emotions emphasises more on application which is a vital aspect of learning Psychology but our students are going to appear for 12th board exams so teachers will also have to teach the theories of Emotions in detail.
- The level of difficulty of the text and the suggested activities has been decided after carefully considering the resources accessible to the students and teachers, variation in their experiences and ability to grasp different concepts as well as the resources available to the teachers. Even then, it is possible that some students may find the book too easy whereas others may find it too difficult. Here, the teacher has an important role to play. The teacher needs to facilitate the difficult concepts and provide higher challenges if they are found to be too easy and preliminary. This can be done by referring the students to appropriate resources or setting challenging activities for them to complete.
- There are suggestions of movies or activities or experiments that have been provided in the textbook. The teacher can use them at her discretion and choice. However, it should be ascertained that students have understood the concepts for which the material and method have been suggested in the first place. The teachers should use QR codes given in the textbook whenever possible. The teacher can of course use resources above and beyond those suggested in the textbook.

We are all aware of the wide scope of the subject of Psychology. No textbook, however well written can claim to be complete. We all know that a textbook is always just a medium or an instrument towards an end.

We hope that you enjoy the teaching-learning process of the subject and students will also find the subject challenging, meaningful and interesting. Best wishes!

# Index

**Sr. No.**

**Chapters**

**Page No.**

1. Psychology : A Scientific Discipline ..... *1*
2. Intelligence ..... *12*
3. Personality ..... *23*
4. Cognitive Processes ..... *33*
5. Emotions ..... *44*
6. Psychological Disorders ..... *62*
7. First Aid in Mental Health ..... *78*
8. Positive Psychology ..... *95*

Glossary ..... *109*

Reference ..... *112*

# 1. Psychology : A Scientific Discipline

## 1.1 Introduction

## 1.2 Key features of science

## 1.3 History of psychology as a science

## 1.4 Research methods in psychology

### 1.4.1 Experimental method

### 1.4.2 Survey method

### 1.4.3 Observation method

### 1.4.4 Case study method

### 1.4.5. Correlation studies

## 1.5 Challenges in establishing psychology as a science

## 1.6 Importance of rationality

### Learning objectives :

1. To understand the key features of science and explain.
2. To acquire knowledge on the history of psychology as a science.
3. To know about the various research methods, their key features and apply the same knowledge in future.
4. To understand and explain the major challenges in establishing psychology as a science.
5. To understand the term Rationality and characteristics of a rational person and explain its application in day to day life.

### Activity 1

Read the following statements

Think and discuss whether the given statements are facts or myths and misconceptions about psychology :

1. Psychology is just common sense and not a real science.
2. Psychology is simply a pseudoscience.
3. Psychologists are simply mind readers or the face readers.

4. Psychology is related only to the study of crazy people who are in need of therapy.
5. Psychologists, psychiatrists and counsellors have the same professional qualifications and their jobs are almost of the same nature.
6. Anyone with a degree in psychology can provide counselling to a needy person.

## 1.1 Introduction :

We live in an age of science. Almost every sphere of our life is influenced by sciences. Since the evolution of Homo sapiens as a species, the survival instinct of humankind has led humans to explore the world around them, which gradually led to the development of various sciences.

Today, sciences are broadly classified into three basic groups viz. the physical sciences (physics, chemistry, geology, etc.), the biological sciences (zoology, botany, physiology, etc.) and the social sciences (psychology, sociology, economics, etc.)

Some people question whether, Psychology really is a science or not? To answer this question, you first need to know the answers to two questions viz. What is science? and What is psychology?

This chapter aims at answering these two complex questions by providing insights into the topics like key features of science, history of psychology as a science, the research methods in psychology, challenges in establishing psychology as a science and the importance of rationality.

## 1.2 Key features of science :

The word science is derived from the Latin word 'Scientia' which means knowledge. Science is the pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidences. The following are some of the key features of science:

**1. Empirical evidence :** Science is an evidence-based approach to study and interpret information. Empirical evidence refers to acquiring information through

direct observation or experiments. Scientific knowledge is based on verifiable evidence so that other investigators can observe or measure the same phenomena and verify its accuracy in future.

**2. Objectivity :** Science objectively studies the phenomenon under consideration. Objectivity means the ability to see and accept the facts as they are and not as the investigator might wish them to be. Objectivity means that all sources of biases, prejudices, beliefs, wishes, values, preferences, etc. are set aside while investigating a particular phenomenon.

**3. Scientific causality :** Science aims at finding out the cause-effect relationship between variables under consideration. In a scientific study, a researcher tries to control all extraneous variables in order to find out the effect of the independent variable (cause) on the dependent variable (effect).

**4. Systematic exploration :** Science adopts a certain sequential procedure for studying a particular phenomenon. Sequential procedure includes few scientific steps like identifying the problem, formulation of hypothesis, collection of facts, analysis of facts, scientific generalization and prediction.

**5. Replication :** Replication means reproducibility of scientific knowledge under the same circumstances stated anywhere and anytime. Replication assures the reliability of results and it enables in establishing a scientific theory.

**6. Predictability :** Predictability is an important feature of science. Scientists do not merely describe the phenomena being studied, but also attempt to explain it and make predictions accordingly.

### Activity 2

Read the following statements and discuss about the same in the classroom :

1. Psychology is a science because it fulfills many conditions of science.
2. Psychology is not an exact science like physics or chemistry.
3. Psychology is a social science that studies human (and animal) behavior and mental processes.
4. Psychology uses some objective research methods, it examines cause-and-effect relationships to produce laws governing human behavior and its findings can be verified.
5. Psychology can be distinguished from pseudoscience and folk wisdom as psychology has evidence against its theories.
6. The subject matter of psychology is complex as human behavior is dynamic and the mental processes are abstract. Therefore, the theories of psychology are not as universal, exact and precise as those in physics and chemistry.

### 1.3 History of psychology as a science :

1. **Psychology begins as a branch of Philosophy :** The origin of psychology dates back to the Ancient Greeks. Psychology did not emerge directly as a science. Psychology was a branch of philosophy until the 1870s.
2. **Psychology emerges as a separate discipline in 1879 :** Wilhelm Wundt, a German psychologist established the world's first psychology laboratory in 1879 in Germany at University of Leipzig. This

event is considered as the official start of psychology as a separate scientific discipline.

3. **Emergence of structuralism :** Structuralism is widely regarded as the first school of thought in psychology. Wilhelm Wundt and his student Edward B. Titchener advocated Structuralism. Wilhelm Wundt used the method of introspection to study the conscious experiences like sensation, perception, etc.
4. **Emergence of Functionalism :** Functionalism was advocated by William James. He is known as the father of 'American Psychology'. He emphasized on the study of human consciousness.
5. **Emergence of Psychoanalysis :** In contrast to the early schools of thoughts, an Austrian physician named Sigmund Freud proposed a theory of Psychoanalysis in early 1890s. He gave importance to the study of the unconscious mind.
6. **Emergence of Behaviourism :** During the early 20th century, an American psychologist named John B. Watson advocated a new school of thought known as Behaviorism. Behaviourism rejected both the study of conscious experiences and unconscious mind and made psychology a more scientific discipline by focusing on the study of observable behaviours.
7. **Emergence of Humanistic Psychology :** The first half of the 20th century was dominated by Psychoanalysis and Behaviourism. During the second half of the 20th century, Carl Rogers, an American psychologist advocated the new perspective known as Humanistic Psychology. In contrast to the study of unconsciousness

advocated by psychoanalysis and determinism advocated by behaviourism, humanistic psychology stressed upon the study of power of free will, self – determination and self actualization.

- 8. Emergence of Cognitivism:** During the 1950s and 1960s, Psychoanalysis and Behaviourism were replaced by the new perspective known as Cognitivism. American psychologist named Ulric Neisser is generally considered as the founder of Cognitivism. Researchers in Cognitive Psychology study higher cognitive processes like memory, decision-making, problem-solving, intelligence, language, etc. with the tools like MRI and PET scans.

### Activity 3

Visit the website given below and collect information about various schools of thought of psychology : <https://www.verywellmind.com/psychology-schools-of-thought-2795247>

## 1.4 : Research methods in psychology :

### 1.4.1 Experimental method :

Experimental method is one of the most scientific method of studying behavior. It is the method which has assigned the status of science to psychology. In experimental method, the experimenter conducts experiments using following steps :

1. Identifying problem
2. Developing hypothesis
3. Selecting an experimental design and standardizing the experimental procedure
4. Conducting experiment and collecting data.
5. Analyzing data
6. Drawing conclusions.

### Activity 4

Learn the Key Terms of experimental method with the help of given example :

1. Problem: To study the effect of music on the level of blood Pressure.
2. Hypothesis: The music will help in regulating the level of blood pressure.
3. Independent variable: Music.
4. Dependent variable: Level of blood pressure.
5. Intervening variables: Age, gender, all other sounds other than music, etc.
6. Experimenter : A person who will be conducting this experiment. (May be you or your psychology teacher.)
7. Participant : A person on whom this experiment will be conducted. (May be your family member/ friend.)

**Some of the important features of experimental method can be explained as follows :**

1. Experimental method is one of the most objective method of collecting data.
2. It enables accurate observations in controlled conditions.
3. Experimental method helps in finding out the cause and effect relationship between two or more variables.
4. The findings of the experimental method are verifiable.

### Do you know ?

Certain aspects of human behaviours cannot be studied by the experimental method due to ethical constraints and some risk factors involved.

### Activity 5

Find out the Independent Variable and Dependent Variable from the experiment ideas given below :

- (1) To study the effect of practice on memory.
- (2) To study the effect of mental set on problem solving.
- (3) To study the effect of noise pollution on the speed of writing.
- (4) To study the effect of colour on perception.
- (5) To study the effect of feedback on decision making.

### Activity 6

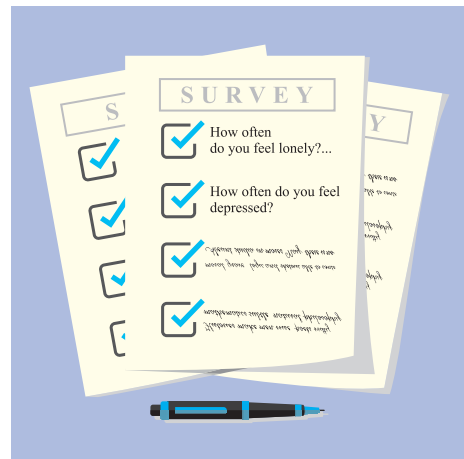
Conduct the following experiment and find out whether the color of text has any impact on memory:

1. Randomly assign participants to two groups. (See to it that age, gender, cultural background, etc. of all participants is same.)
2. Ask one group to read a list of 20 words written in black ink for 5 minutes.
3. Ask the second group to read a list of the same 20 words for the same amount of time, but instead written in green ink.
4. After 5 minutes, ask participants from both the group to write down as many words as they can recall on a plain paper.
5. Compare the recall scores and conclude.

#### 1.4.2 Survey method :

A survey is defined as a research method used for collecting data from a pre-defined group of respondents (sample) to gain information and insights on various topics of interest such as political opinion, consumers'

preferences, etc. Survey method makes use of questionnaires, checklists, rating scales, inventories, interviews etc. to collect the required information. The Survey method is largely used by social psychologists, educational psychologists, industrial psychologists etc. Survey method is an economic and an efficient method of data collection. Surveys can be undertaken using email, telephonic calls or direct interaction with respondents.



**Specimen of a questionnaire used in survey method**

### Activity 7

Discuss about the following topics which can be studied using survey method :

1. Determinants of job satisfaction
2. The problems of working women
3. Exercise and physical health
4. Causes of students absenteeism
5. Causes of alcoholism
6. Addiction to virtual online games.
7. Social networking and cyber-crimes
8. Problems faced by senior citizens

### 1.4.3 Observation method:

Observation method is a research method which is very useful in the areas where experiments cannot be conducted. It is a method in which behaviour is observed in a natural or laboratory setting. Observation carried out in a natural setting is called natural observation and observation carried out in a laboratory setting is called controlled observation.

Observation method is widely used by child psychologists, clinical psychologist, social psychologists, etc. Observation method can be treated as a scientific method and will be beneficial when it is used with the specific purpose of the research and planned in a systematic way.

#### Activity 8

Discuss about the following topics which can be studied using observation method:

- (1) Aggressive tendencies shown by teenagers.
- (2) Reactions of passengers stuck in heavy traffic.
- (3) Body language of students participating in the elocution competition.
- (4) Civic sense shown at public places.
- (5) Student's behaviour at the book exhibition.

### 1.4.4 Case study method :

Case study is one of the qualitative research methods used in psychology. This method is mostly used by clinical psychologists. Sigmund Freud and Jean Piaget were the two important figures to use case study method widely. Case study is an in-depth look at an individual, group or a particular event. Case study can be treated

as a scientific method as it provides rich descriptive information often suggesting hypotheses for further studies.

In case study method, a researcher collects information about a particular individual (case) from multiple sources such as parents, family members, peers, teachers, colleagues, etc. to assess the individual's current level of psychological functioning. A researcher while using case study method may use several techniques like observation, interview, psychological tests, etc. to collect information about a particular individual.

#### Activity 9

Read the following well known classical case

#### The Case of "Anna O."

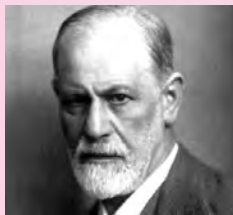
"Anna O" (Real name : Bertha Pappenheim) was suffering from a variety of odd physical and psychological symptoms. One of them was that for several weeks she was unable to drink any fluids.

"Anna O" would pick up the glass of water, but as soon as it touched her lips she would push it away like someone suffering from hydrophobia. "Anna O" lived only on fruit, such as melons, etc., so as to lessen her tormenting thirst.

During hypnosis, "Anna O" grumbled about her English "lady-companion," whom she did not care for, and went on to describe, with every sign of disgust, how she had once gone into this lady's room and how her little dog had drunk out of a glass

there. During hypnosis “Anna O” asked for something to drink, drank a large quantity of water without any difficulty and awoke from her hypnosis with the glass at her lips; and thereupon the disturbance (inability to drink water) vanished, never to return.

Freud’s interpretation was that “Anna O” had repressed the memory of incident (dog had drunk out of a glass) along with the emotion that it triggered and that this was what had caused her inability to drink. Furthermore, during hypnosis, “Anna O’s” recollection of the incident, along with her expression of the emotion she had repressed, caused the symptom to go away.



**Sigmund Freud**

The case of "Anna O" played a remarkable role in the establishment and development of psychoanalysis by Sigmund Freud.

### Activity 10

Discuss about the following topics which can be studied using case history method:

1. A patient suffering from phobia
2. A student suffering from dyslexia
3. A farmer who attempted suicide
4. A successful young entrepreneur
5. Gold medallist athlete

### 1.4.5 Correlation studies :

There are certain scientific studies which make use of correlation as a statistical tool to understand the relation among variables. Such studies are called correlational studies.

Correlation is a statistical tool used to measure the relationship between two or more variables. If the change in one variable appears to be accompanied by a change in the other variable, the two variables are said to be correlated and this interdependence is called correlation.

The extent of correlation between two variables is measured by correlation coefficient. A correlation coefficient is always a number between  $-1.00$  to  $+1.00$ . The sign (+ or  $-$ ) of a correlation coefficient indicates the direction of the relationship between the variables.

There are three types of correlation :

1. **A positive correlation :** When both variables either increase or decrease at the same time, they are said to have a positive correlation between them. In case of positive correlation, the value of correlation is found between  $0.00$  and  $+1.00$ . For example, The amount of rehearsal and recall score.
2. **A negative correlation :** When an increase in one variable is associated with a decrease in the other and vice versa, they are said to have a negative correlation between them. In case of a negative correlation, the value of correlation is found between  $0.00$  to  $-1.00$ . For example, amount of exercise and level of body fats.
3. **A zero correlation :** When any change in one variable brings no significant change in other variable, they are said to have a zero correlation. In case of zero correlation, the value of correlation coefficient is found to be  $0$ . For example, height and intelligence.

### Activity 11

Remember the information given in the following table :

Type of correlation	Variable 'X'	Variable 'Y'
Positive correlation	Rises ↑	Rises ↑
	Falls ↓	Falls ↓
Negative correlation	Rises ↑	Falls ↓
	Falls ↓	Rises ↑
Zero correlation	Rises ↑	No significant change
	Falls ↓	

### Activity 12

Discuss about the following topics that can be studied using correlation study method :

- (1) Bunking lectures and score in exams
- (2) Weight and intelligence
- (3) Amount of salary and level of job satisfaction
- (4) Rehearsal and forgetting
- (5) Height and aptitude in music
- (6) Urbanization and pollution
- (7) Speed of vehicles and road accidents

### 1.5 Challenges in establishing psychology as a science :

Although psychology is considered to be a scientific discipline, it has many controversies. Controversies and criticisms of psychology have been made on theoretical, practical, ethical and philosophical grounds. The following controversies and criticisms are the challenges in establishing psychology as a science :

1. **Psychology in pre-paradigmatic state :**  
In contrast to mature and natural sciences

such as physics and chemistry, psychology is younger and a social science. Though psychology is considered as a science, according to philosopher named Thomas Kuhn, psychology is still in a pre-paradigmatic state.

Psychology has not succeeded yet in producing a cumulative body of knowledge that has a clear conceptual core that is consequently agreed upon by experts in psychology.

#### 2. **Issues related to objectivity and validity:**

Some areas of psychology such as personality, leadership, creativity, emotions, attitudes, etc. rely on "soft" research methods such as surveys and questionnaires, etc. Methods such as introspection and psychoanalysis are inherently subjective. Therefore, psychology to some extent falls short on the criteria of objectivity and validity.

3. **Issues related to predictability and replicability :** A major goal of psychology is to predict behaviour by understanding its causes. In psychology, making exact predictions is difficult as people respond differently in different situations. Human behaviour is more difficult to study than particles and chemical compounds. Therefore, the test results in psychology are more varied, harder to control and difficult to replicate.

4. **Objectifying humans :** Some existential and humanistic psychologists from within the field criticize that, by subjecting the human behaviour to experimentation, psychologists objectify persons. Since it treats human beings as things, as objects that can be examined by experiments, psychology is sometimes portrayed as dehumanizing what is most essential about being human.

## 1.6 Importance of rationality :

Being a science, psychology tries to establish laws that govern human behavior, at the same time it accepts the fact that human behavior is dynamic and complex. Some of our behaviors are commonly seen in others at the same time some of our behaviors are exclusive.

Attaining happiness is man's greatest aim in life. While achieving this aim, every individual feels, thinks and acts exclusively. But while being happy one should see to it that one's emotions, thoughts and acts do not get driven by irrational influences and one should not compromise on social norms, values and ethics for being happy. Here the aspect of rationality comes in picture in psychology.

Sciences are appreciated by society when application of scientific knowledge improves the quality of life. Like other sciences, psychology too helps in improving the quality of life by applying the concept of rationality in day to day life.

Stanovich and his colleagues while talking about rationality stated that, "Rationality involves adaptive reasoning, good judgement and good decision making."

Sternberg and his colleagues while talking about intelligence suggested that Practical Intelligence can be defined as "the ability to perform successfully in naturalistic settings in a way that is consistent with one's goal."

Dr. Albert Ellis who proposed Rational Emotive Behavioral Therapy (one of the effective and popular method of intervention in the field of counselling psychology) has given values of rational living. He also says that rational people are psychologically healthy people and they possess certain characteristics. Some of them are given ahead :

1. **Understanding self-interest and social interest** : 'Safeguard your self-interest and know others interest' is almost like a slogan of Rational Emotive Behavioural Therapy. Rational people understand what is self-promoting and what helps them to grow and they take responsibility of making those choices but at the same time take care of not violating other person's rights and aid in survival of the society in which they live.
2. **Self-direction** : Rational people assume primary responsibility for their own lives rather than demanding or needing excessive support or nurturance from others.
3. **Tolerance** : Rational people are highly tolerant. Tolerance is the willingness to accept behavior and beliefs of others that are different from one's own. Similarly, rational people accept one's own and others' right to be wrong.
4. **Flexibility** : Rational people are found to be healthy individuals. Rational people tend to be flexible, unbiased in their thoughts and actions.
5. **Self-acceptance and self-responsibility** : Rational people accept themselves unconditionally rather than rating or proving themselves and also accept responsibility for their own thoughts, beliefs, feelings and behavior.

According to Dr. Albert Ellis, rationality as a personal philosophy helps an individual to attain many goals in life and to be happy. For being happy a person must BE RATIONAL. This concept is explained with the help of the following table :

<b>B (Balance)</b>	Balance between self-interest and interest of others
<b>E (Estimate)</b>	Estimate the time, efforts, gains and losses
<b>R (Respect)</b>	Respect oneself and others
<b>A (Affiliate)</b>	Affiliate with others
<b>T (Tolerate)</b>	Tolerate oneself and others
<b>I (Intergrate)</b>	Integrate personal wellbeing with social wellbeing
<b>O (Optimize)</b>	Optimize potential fully
<b>N (Navigate)</b>	Navigate path of success
<b>A (Accept)</b>	Accept the limitations and overcome them
<b>L (Live)</b>	Live life fully

### Summary

- Empirical evidence, objectivity, scientific causality, systematic exploration, replication and predictability are some of the key features of science.
- Psychology is considered as a science as it fulfils many conditions of science. Psychology is a social science that studies behaviour and mental processes.
- Wilhelm Wundt, opened the world's first psychology laboratory in 1879 in Germany at University of Leipzig. This event is considered as the official start of psychology as a separate

scientific discipline.

- Experimental method, survey method, observation method, case study method, correlation studies, etc. are some of the research methods of psychology.
- Pre-paradigmatic stage of psychology, issues related to objectivity, validity, predictability, replicability and ethical controversies are the challenges in establishing psychology as a science.
- Psychology helps in improving the quality of life by applying rationality in day to day life.

### Important Concepts

- Replicability
- Independent Variable
- Dependent Variable

- Participant
- Interview
- Correlation coefficient

## Important Psychologists

- **Edward B. Titchener** : Edward Titchener was a student of Wilhelm Wundt. He belongs to Structuralism school of thought of psychology.

- **William James** : William James was the first educator to offer a psychology course in the United States, earning him the title 'Father of American Psychology.' He is considered as the founder of Functionalism school of thought of psychology.

## Exercises

### Q.1. Choose the correct option and Complete the following statements :

- (1) Till 1879, psychology was a branch of .....  
a. physics      b. philosophy  
c. physiology
- (2) Psychology is a ..... science.  
a. natural      b. social      c. biological
- (3) ..... is considered as founder of Psychoanalysis.  
a. Wilhelm Wundt      b. Carl Rogers  
c. Sigmund Freud

### Q.2. Match the Pairs :

Group 'A'	Group 'B'
1. Structuralism	a. John Watson
2. Functionalism	b. Carl Rogers
3. Behaviourism	c. Ulric Neisser
4. Cognitivism	d. William James
	e. Wilhelm Wundt

### Q.3. State whether the following statements are true or false :

- (1) Psychology is a study of mental processes.
- (2) Case study method is quite often used by clinical psychologists.
- (3) An experimenter is a person on whom the experiment is conducted.

### Q.4. Answer the following in one sentence each :

- (1) In which year was the first psychology

laboratory established?

- (2) Who is considered as the 'Father of American Psychology'?
- (3) What is meant by an experimenter?

### Q.5. Define the following concepts :

- (1) Replicability
- (2) Correlation coefficient

### Q.6. Write short notes on the following :

- (1) Observation method
- (2) Survey method
- (3) Case study method
- (4) Importance of rationality

### Q.7. Answer the following questions in detail:

- (1) Write detailed information of the experimental method in psychology.
- (2) Explain some of the challenges in establishing psychology as a science.
- (3) Explain some of the characteristics of a rational individual.
- (4) Explain the types of correlation.
- (5) Explain the key features of science.

### Q.8. How Rational Am I ?

- (1) Identify the strongest and the weakest characteristics in you from those explained by Dr. Albert Ellis.
- (2) How will you work on your weakest characteristic? Write two strategies.



## 2. Intelligence

### 2.1 Introduction

### 2.2 Perspectives on intelligence

### 2.3 Measurement of intelligence

#### 2.3.1 History of measurement of intelligence

#### 2.3.2 Concepts related to measurement of intelligence

### 2.4 Types of intelligence tests

### 2.5 Applications of intelligence testing in various areas

### 2.6 New trends in Intelligence

#### 2.6.1 Social Intelligence

#### 2.6.2 Emotional Intelligence

#### 2.6.3 Artificial Intelligence

### Learning objectives :

1. To summarise and describe the perspectives on intelligence.
2. To demonstrate an understanding of the History of Measurement of Intelligence and various concepts related to it.
3. To categorize the different types of intelligence tests and analyse their characteristics and advantages.
4. To develop an understanding on the usefulness of intelligence testing and its application in diverse fields.
5. To evaluate the new trends in intelligence eg Social, Emotional and Artificial intelligence and apply its importance in daily life.

### 2.1 Introduction :

If you are asked to choose only one of the three options viz. (1) Lot of money (2) Good looks and (3) Intelligence, which one will you choose? Why?

Probably majority of you will choose intelligence, as intelligence is essential for getting success in examinations, participating in various competitions, taking decisions, getting job and money and so on. Now, let us see what psychologists say about this attribute of human beings.

Intelligence is a unique and the highest attribute of human species because of which, human is proved to be supreme today. Humans

have achieved new horizons of progress by using the gift of intelligence.

### Activity 1

Read the following sentences and decide whether the given sentences are the facts or just beliefs about intelligence :

1. Intelligence is something that is inborn.
2. Students who are intelligent can get good marks in examinations.
3. Students who do not get good marks in examinations are less intelligent.
4. People who are intelligent are very smart.
5. Intelligent people can impress anyone by their talk.

By reading the sentences given in the above box, you must have started thinking about the nature of intelligence. What intelligence is in reality is unveiled in this chapter. Intelligence means a capacity to understand the world, think rationally, and use available resources effectively when faced with challenges. Different psychologists have defined intelligence in different ways depending upon their perspectives. **Some of the definitions of intelligence are as follows :**

1. According to Lewis Terman, 'An ability to think on an abstract level is called Intelligence.'
2. According to David Wechsler, 'Intelligence is the aggregate or global capacity of an individual to act purposefully, to think rationally, and to deal effectively with his environment.'

## 2.2 Perspectives on intelligence :

Many psychologists believe that intelligence is a single, global ability. On the other hand, many other psychologists believe that intelligence encompasses several different abilities. These two main perspectives on intelligence are as follows :

1. **Intelligence as a single, general ability :**  
Psychologists who believe in the unitary notion of intelligence explain that only the functions of intelligence take different forms but basically it is the same ability. Alfred Binet, Lewis Terman, David Wechsler believed that intelligence is a single entity.
2. **Intelligence as a set of multiple abilities :**  
Psychologists like E. L. Thorndike, Louis Thurstone, Charles Spearman, etc. came up with the notion that multiple abilities are involved in intelligence. This perspective on intelligence is explained in the following table :

- **E. L. Thorndike :** E. L. Thorndike put forth three independent abilities that can be called intelligence. These abilities are (1) Abstract intelligence (2) Social intelligence and (3) Concrete intelligence.

- **Louis Thurstone :** Louis Thurstone proposed seven primary abilities, each independent of the other that can be called intelligence. These seven primary abilities are (1) Verbal comprehension (2) Word fluency (3) Number facility (4) Spatial visualization (5) Associative memory (6) Perceptual speed and (7) Reasoning. Louis Thurstone also devised the test to measure these abilities.

- **Charles Spearman :** In 1927, Charles Spearman with the help of statistical method called factor analysis separated and identified two different factors of intelligence viz. (1) General factor (g) and (2) Specific factor (s). According to him, General factor is the minimum competence required to carry out daily work. Whereas specific factor includes abilities which are required to solve problems in specific areas.

- **Raymond Cattell and John Horn :** Raymond Cattell with his student John Horn proposed a theory of intelligence explaining two types of intelligence viz. (1) Fluid intelligence and (2) Crystallized intelligence. According to them, fluid intelligence is dependent on neurological development and it is relatively free from the influences of learning and experiences. However, crystallized intelligence is not dependent on one's neurological development and it is a function of one's educational attainment, acquired experiences and stock of knowledge.

- **Howard Gardner** : Howard Gardner in his theory of multiple intelligence asserted that there are nine independent types of intelligence that grow and develop differently in different people, depending upon the individuals heredity characteristics or environmental experiences. These nine types of intelligences are (1) Linguistic intelligence (2) Logical-mathematical intelligence (3) Spatial intelligence (4) Musical intelligence (5) Bodily-kinesthetic intelligence (6) Interpersonal intelligence and (7) Intra-personal intelligence (8) Naturalistic intelligence and (9) Existential intelligence.

## 2.3 Measurement of intelligence :

### 2.3.1 History of measurement of intelligence :

Paul Broca and Sir Francis Galton were among the first scientists to think about measuring intelligence. In mid 1880s, Sir Francis Galton administered a battery of tests measuring variables such as head size, reaction time, visual accuracy, auditory threshold, breathing capacity, etc. He thought he could determine intelligence by measuring the size of the human skull. He assumed that the larger the skull, the smarter the person. But Sir Francis Galton's test did not prove very useful for the measurement of intelligence.

In the early 1890s, Raymond Cattell, an assistant in Sir Francis Galton's laboratory, established similar laboratories in the United States. During this time, Raymond Cattell used the term 'mental test' for the first time in the psychological literature. Raymond Cattell shared Sir Francis Galton's view that intelligence is best measured through sensory tasks, but expanded his mentor's ideas by emphasizing that test administration must be standardized so that results are comparable from person to person and from time to time.

In the beginning of the 20th Century, the school authorities in Paris were keenly interested in knowing the reasons for repeated failure of certain students in the examination as no medical reason or any environment factor was found to be associated with their failure. The result was the Binet- Simon Intelligence Scale. In collaboration with Theodore Simon, French Psychologist, Alfred Binet published the first scale of intelligence in 1905. So Alfred Binet is considered as the 'Father of Intelligence Test'. Binet- Simon Intelligence Scale consists of several components such as logical reasoning, finding rhyming words and naming objects. This scale was revised in 1908 and again in 1911.

Lewis Terman from Stanford University revised the Binet-Simon Intelligence Scale in 1916. He adapted few items, added other items, established new age norms and extended the upper age limit of the scale. This revised test was known as Stanford Binet Test. This test was revised in 1937, 1960, 1972, 1986 and 2004.

The first World War began in 1914. Later on in 1917, Robert Yerks with the help of his colleagues prepared Army Alpha and Army Beta intelligence tests. These intelligence tests were used while recruiting soldiers in the army. In the Post First World War period the importance of intelligence testing increased. In 1939, during the Second World War, again while recruiting soldiers in the army, an intelligence test named Army General Classification Test was used on a large scale.

David Wechsler, in 1939, published the Wechsler- Bellevue Intelligence Scale. This scale was revised in 1955 and was renamed as Wechsler Adult Intelligence Scale (WAIS). WAIS is a test designed to measure intelligence of adults and older adolescents. The fourth edition of this test (WAIS-IV) was released in

2008 by Karl Pearson. David Wechsler also developed an intelligence test to measure the intelligence of children. This test is known as Wechsler Intelligence Scale for Children (WISC).

Besides these tests, many other psychologists have developed various intelligence tests. The number of intelligence tests and applications of intelligence testing are increasing day by day.

### 2.3.2 Concepts related to measurement of intelligence :

- 1. Mental Age :** The concept of mental age was introduced by Alfred Binet. He assumed that mental development need not correspond to chronological age. He devised a test comprising of items specified for different age group levels and measured mental age of various people. Mental age can be defined as the age at which individual performs successfully on all items on the test prepared for that age. The concept of mental age is explained with the help of the following examples :

Individual	Chronological Age (in years)	The age at which individual performed successfully on all items on the test prepared for that age	Mental Age (in years)
Esha	10	12	12
Ankit	10	10	10
Rajesh	10	08	08

- 2. Intelligence Quotient :** The concept of Intelligence Quotient (I.Q.) was introduced by German psychologist William Stern in 1912 as a ratio of Mental Age (M.A.) to

Chronological Age (C.A.). Stern computed I.Q. by the formula. Later, Terman refined the formula of I.Q. by multiplying the ratio of M.A. and C.A. by 100. This formula is as follows :

$$\text{Intelligence Quotient (I.Q.)} = \frac{(\text{Mental Age (M.A.)})}{(\text{Chronological Age (C.A.)})} \times 100$$

**The concept of I.Q. is explained with the help of the following examples :**

Individual	Mental Age (in years)	Chronological Age (in years)	Relation between mental age and chronological age	Intelligent Quotient (I.Q.)
Esha	12	10	M.A. is greater than C.A.	120 (Above Average)
Ankit	10	10	M.A. is equal to C.A.	100 (Average)
Rajesh	08	10	M.A. is less than C.A.	80 (Below Average)

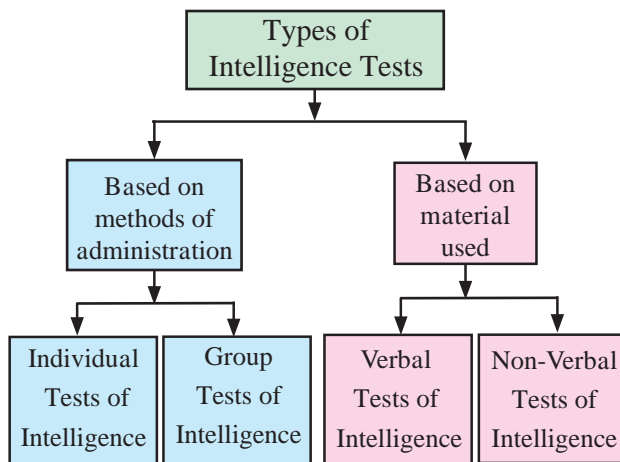
#### Activity 2

Read the following examples. Using the formula, calculate the I.Q. of the following students :

1. Aabha is a genius girl. Her chronological age is 8 years and her mental age is 14 years. Find out her I.Q.
2. Mayur has learning disabilities. His chronological age is 8 years and his mental age is 6 years. Find out his I.Q.

## 2.4 Types of intelligence tests :

Today psychologists use a variety of intelligence tests to measure intelligence. All these tests are classified into the following main categories:



### 1. Individual tests of intelligence :

Intelligence tests that can be administered to a single individual at a time are called individual tests of intelligence. Binet's Scale of Intelligence, Wechsler Scale of Intelligence, Dr. Bhatia's Performance Test of Intelligence, Arthur Point Scale, Koh's Block Design, etc. are some of the examples of individual tests of intelligence.

#### Advantages of individual tests of intelligence:

1. The test administrator can establish a rapport with a client .
2. The test administrator can get additional information about the client's feelings, moods and expressions during testing.
3. Individual tests are more capable of measuring creative thinking, compared to group test.

#### Disadvantages of individual tests of intelligence:

1. Individual tests are time consuming and costly to administer.
2. Individual tests require a trained and skillful examiner to administer, score and interpret them.

### Activity 3

Make a chart listing the advantages and disadvantages of individual tests of intelligence

### 2. Group tests of intelligence :

Intelligence tests that can be administered to more than one person at a time are called group tests of intelligence. Group tests of intelligence were devised to recruit large number of soldiers in the army during the First World War. Group tests are useful mainly for mass testing. Army Alpha Test , Army General Classification Test, Raven's Standard Progressive Matrices, etc. are some of the examples of group tests of intelligence.

#### Advantages of group tests of intelligence :

1. Group tests are less time consuming and economical.
2. In administering group tests, the role of the examiner is minimal. So he need not go through any specialized training.

#### Disadvantages of group tests of intelligence:

1. The test administrator has much less opportunity to establish rapport, obtain co-operation and maintain interest of the clients.
2. Compared to individual tests, group tests are less capable of measuring creative aspect of intelligence.

### Activity 4

Make a chart listing the advantages and disadvantages of group tests of intelligence

### 3. Verbal tests of intelligence :

Intelligence tests that use language (words or numbers) for measuring intelligence are called verbal tests of intelligence. In these tests

subjects are required to respond verbally to test items. Army Alpha Test, Wechsler's Adult Intelligence Scale (WAIS), etc. are some of the examples of verbal tests of intelligence.

#### **Advantages of verbal tests of intelligence :**

1. Verbal tests of intelligence are useful to measure higher mental abilities.
2. Verbal tests of intelligence are useful to differentiate between people having average intelligence and people having above average intelligence.

#### **Disadvantages of verbal tests of intelligence:**

1. These tests cannot be given to people having different linguistic background, illiterate people and small children.
2. These tests are culture bound and therefore cannot be used in other cultures.

#### **Activity 5**

Study the specimen of verbal test of intelligence given below:

#### **Verbal test of intelligence**

#### **Choose the correct option :**

- (1) Shoe – Foot :: Hat - .....
- (i) Kitten (ii) Head (iii) Knife
- (2) Eye – Head :: Window - .....
- (i) Key (ii) Floor (iii) Room

#### **4. Non-verbal test of intelligence :**

Intelligence tests that use pictures, designs, material objects, etc. to measure intelligence are called non-verbal tests of intelligence. In these tests language is not used to measure intelligence. In these tests subjects are not required to respond verbally to test items. Non-verbal tests are of two types viz. (1) Performance tests and (2) Paper-pencil tests. Koh's Block Design Test, Alexander's Pass-along test, Merrill Palmer

Block Building test, Dr. Bhatia's Non-Verbal Test of Intelligence, etc. are some of the examples of performance tests of non-verbal tests of intelligence. Raven's Standard Progressive Matrices, Raven's Coloured Progressive Matrices, etc. are some of the examples of paper pencil tests of non-verbal tests of intelligence.

#### **Advantages of non-verbal tests of intelligence:**

1. Non-verbal tests can be given to people having different linguistic background, illiterate people and small children. Performance tests are especially useful to measure intelligence of differently abled people.
2. These tests are culture free and therefore can be used in other cultures.

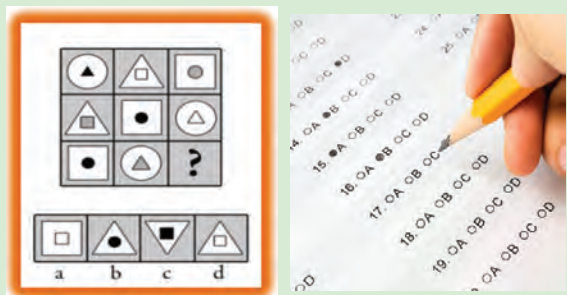
#### **Disadvantages of non-verbal tests of intelligence:**

1. Non-verbal tests of intelligence are less suitable to measure higher and subtle mental abilities.
2. Non-verbal tests of intelligence are less suitable to differentiate between people having average intelligence and people having above average intelligence

#### **Specimen of performance tests of intelligence**



### Specimen of paper-pencil test of intelligence



## 2.5 Applications of intelligence testing in various areas :

Measurement of intelligence began with the need of knowing individual differences. Today, intelligence testing has its applications in diverse fields such as educational institutes, child guidance centres, industries, recruitment centres, diagnostic clinics etc. Following are some of the areas, where intelligence testing proves helpful.

1. **Effective schooling :** The intelligence tests enable teachers and other authorities to identify the educationally backward students and solve their problems. On the basis of periodic test scores, teachers are able to classify pupils into different intellectual categories, to help them by devising special instructional programs suited to their mental development and thereby enhancing the process of their development to the adequate normal level.
2. **Mental health aiding :** Intelligence tests enables clinicians to measure the intellectual levels of their clients. Intelligence tests are helpful to clinicians for diagnostic purposes, prognosis and deciding the therapeutic or rehabilitative programs.
3. **Effective parenting :** Intelligence tests help parents to know the intellectual capacities of their children. IQ scores help parents in providing relevant educational

facilities to their children and to have realistic expectations from their children.

4. **Career counselling :** Intelligence tests helps students to select the right educational course which is suitable to their intellectual capacities. This helps in reducing the problems of failure, waste of time and money, etc. and increase the possibilities of being successful.
5. **Vocational counselling :** Intelligence tests help people to choose the suitable vocation for themselves. This helps in reducing the problems of absenteeism, job dissatisfaction, etc. and increases the possibilities of living a satisfied and happy life.

## 2.6 New trends in intelligence : (Social Intelligence, Emotional Intelligence and Artificial Intelligence)

### 2.6.1 : Social intelligence :

#### Activity 6

#### Read the following examples :

1. Chetan, a very intelligent adult, fails to cope up with the simple challenges in life. He feels very lonely. His relations with parents, wife and colleagues are extremely problematic.
2. Sagar, a bank manager has good relations with others. But, sometimes he becomes angry without reason and talks rudely to his subordinates.
3. Anil, a young entrepreneur, got very less marks in his degree examination. However, by his hard work, excellent communication skills and ability to maintain friendly relations with all, he has become successful in his business and is living his life very happily.

By reading the examples given in the above box, you must have started thinking about the

nature of social intelligence. Many a times we see people who are less qualified, or who did not do well in school are quite successful, happy and popular in their lives. Thus, it is not merely the cognitive abilities but some other factors that determine the success and social intelligence is one of those factors.

E.L. Thorndike, a psychologist from Columbia University proposed the term social intelligence for the first time in 1920. Howard Gardner included ‘inter personal intelligence’ in his multiple intelligence theory. According to Karl Albrecht, “Social intelligence is the ability to get along well with others, and to get them to cooperate with oneself.”

According to Karl Albrecht our behavior towards others falls somewhere on a spectrum between toxic behaviour and nourishing behaviour. Devaluing others, refusing cooperation to others, negative talking, discouraging others, etc. are some of the examples of toxic behaviors. A continued pattern of toxic behavior indicates a low level of social intelligence. Respecting others, cooperating with others, positive talking, encouraging others, etc. are some of the examples of nourishing behavior. A continued pattern of nourishing behavior indicates a high level of social intelligence :

#### Activity 7

Read the examples given in Activity 6 again and decide the positions of Chetan, Sagar and Anil on the following spectrum of behaviour :



#### The following are some of the characteristics of people having high social intelligence :

- (1) They are good at understanding and interacting with other people.
- (2) They have ability to monitor their verbal and non-verbal expressions while communicating with others.
- (3) They are good speakers and good listeners.
- (4) They are skilled at assessing the emotions, motivations, desires, and intentions of those around them.
- (5) They understand social dynamics in an effective way.
- (6) They are flexible in their approach while dealing with others.
- (7) They are goal orientated, persistent and self- confident.
- (8) They can resolve conflicts in social contexts.
- (9) They are successful negotiators.
- (10) They enhance personal and professional relationships with others.

#### 2.6.2 : Emotional intelligence :

##### Activity 8

#### Read the following examples :

- (1) Megha is always afraid of getting less marks in examinations. Therefore, she always becomes restless and avoids going to college.
- (2) Shailesh, an ordinary worker in a textile mill earns 10,000 salary per month. Though having some financial problems, he never feels anxious, he understands the problems of others, helps needy people and lives his life happily.

By reading the examples given in the above box, you must have started thinking about the nature of emotional intelligence. In our pursuits

to be successful in a competitive world, all of us face socially, economically, occupationally or academically challenging situations. To cope up with these challenging situations effectively, it is very important to be aware of and to manage our emotional reactions in such challenging situations.

John Mayer and Peter Salovey used the term emotional intelligence for the first time. Daniel Goleman (1995) popularized the concept of emotional intelligence on a large scale.

Researchers like John Mayer and Peter Salovey defined Emotional Intelligence as the ‘ability to perceive and monitor one’s own and others emotions, to discriminate among them and to use this information to guide one’s thinking and action.’ They presented an ability based model of emotional intelligence and defined emotional intelligence as a set of following cognitive abilities :

1. **Perceiving emotions** : The ability to identify and interpret emotions of self and others.
2. **Using emotions** : The ability to use emotions to facilitate various cognitive activities such as thinking and problem solving, etc.
3. **Understanding emotions** : The ability to understand emotional language and comprehending relationships among various emotions.
4. **Managing emotions** : The ability to regulate emotions of self and others.

#### Activity 9

Study the differences between the characteristics of people having high emotional intelligence and low emotional intelligence and think about what you can do to develop your emotional intelligence ?

Characteristics of people having high emotional intelligence	Characteristics of people having low emotional intelligence
Emotionally stable, Patient	Emotionally unstable, Impatient
Optimistic, Independent	Pessimistic, Dependent
Happy, Enthusiastic	Sad, Apathetic
Calm, Satisfied	Restless, Dissatisfied

### 2.6.3 Artificial Intelligence :

Artificial Intelligence is enabling machines or the software programmes running those machines to think and learn through experience just like human’s intelligence. Artificial intelligence is a field of study that combines the sciences of computer science, algorithms, languages, philosophy and psychology.

#### Activity 10

Discuss how the following devices use Artificial Intelligence :

1. Computers
2. Self-driving cars
3. Robots
4. Medical diagnostic tools
5. Translation devices
6. Automatic Missiles
7. Chatbots, etc.

Artificial Intelligence is an innovation created by human intelligence. There are comparatively no limitations to human intelligence, but there are certain limitations to Artificial Intelligence.

Due to upgraded knowledge based on experiences, imagination, emotions, ethics,

social values, etc. human intelligence can take comparatively more relevant decisions, Artificial Intelligence can take decisions only on the basis of stored information.

In comparison to Artificial Intelligence, human intelligence is superior in nature. Therefore, Artificial Intelligence cannot be an option to human intelligence in a real sense.

Today, Artificial Intelligence is used on a large scale to perform various daily routine

tasks as well as to solve various critical problems. For example, it is used for :

- (1) Speech recognition
- (2) Natural language processing
- (3) Spam filtering from emails
- (4) Medical diagnosing
- (5) Detecting frauds in economic transactions,
- (6) Weather forecasting, etc.

### Summary

- Intelligence means a capacity to understand the world, think rationally, and use available resources effectively when faced with challenges.
- The two major perspectives to intelligence are that - intelligence is a single entity and intelligence comprises of multiple abilities.
- In 1905, Alfred Binet developed the first intelligence test. He is considered to be the 'Father of Intelligence Test.'
- Today, the intelligence tests are used in diverse fields such as

educational institutes, child guidance centres, industries, recruitment centres, diagnostic clinics etc.

- In today's competitive world, the importance of social intelligence and emotional intelligence is increasing from the point of view of becoming successful in a real sense.
- Today, Artificial Intelligence is used on a large scale to perform various daily routine tasks as well as to solve various critical problems.

### Important Concepts

- Mental age
- Intelligence Quotient
- Performance tests

- Social Intelligence
- Emotional Intelligence
- Artificial Intelligence

## Important Psychologists

- **Alfred Binet** : Alfred Binet devised the first intelligence test in 1905. He is considered as the 'Father of Intelligence Test'.

- **Lewis Terman** : Lewis Terman was from Stanford University. He revised the Binet-Simon Intelligence Scale in 1916.

## Exercises

### Q.1. Choose the correct option and complete the following statements :

1. .... has given formula of I.Q.  
a. Binet                                      b. Stern  
c. Wechsler
2. .... has given the concepts of fluid intelligence and crystallized intelligence.  
a. Cattell                                      b. Thorndike  
c. Salovey
3. .... is an individual test of intelligence  
a. Army Alpha Test    b. Army Beta Test  
c. Block Building Test

### Q.2. State whether the following statements are true or false :

- (1) Verbal tests of intelligence can be given easily to illiterate people.
- (2) It is possible to increase emotional intelligence.
- (3) There are certain limitations to Artificial Intelligence.
- (4) Group tests of intelligence are less expensive.

### Q.3. Answer the following in one sentence each:

- (1) What is meant by intelligence?
- (2) Who is considered as the father of intelligence test?
- (3) What is meant by verbal tests of intelligence?

- (4) What is meant by individual test of intelligence?

### Q.4. Define the following concepts :

- (1) Mental age
- (2) Social intelligence
- (3) Emotional intelligence

### Q.5. Write short notes on the following :

- (1) Intelligence Quotient
- (2) Charles Spearman's theory of intelligence
- (3) Verbal tests of intelligence
- (4) Non-verbal tests of intelligence
- (5) Artificial Intelligence

### Q.6. Answer the following questions with the help of the given points :

- (1) Write in brief about individual tests of intelligence  
(i) Meaning            (ii) Advantages  
(iii) Disadvantages
- (2) Write in brief about group tests of intelligence  
(i) Meaning            (ii) Advantages  
(iii) Disadvantages

### Q.7. Answer the following questions in detail:

- (1) Write in detail about the history of intelligence testing.
- (2) 'Intelligence testing has a wide usage in various areas'. Justify with examples.
- (3) Explain the characteristics of people having high social intelligence.



## 3. Personality

### 3.1 Introduction

### 3.2 Definitions of Personality

### 3.3 Factors shaping personality

### 3.4. Perspectives of studying personality

#### 3.4.1 Carl Jung's theory of personality

#### 3.4.2 Allport's theory of personality

#### 3.4.3 Big Five Factor Model of personality

### 3.5 Measurement of Personality

#### 3.5.1 Behavioural Analysis

#### 3.5.2 Self Report Inventories

#### 3.5.3 Projective Methods

### Learning objectives

1. To illustrate an understanding of the concept of personality.
2. To assess and describe the various factors affecting personality.
3. To analyse and explain the various perspectives of studying personality.
4. To evaluate and explain the various techniques of measuring personality.

### Activity 1

Read the following examples and express your opinion about the concept of personality:

1. Rohan is a good looking boy. He is a genius, but extremely arrogant. He always shouts at his friends. He always talks very rudely to his parents.
2. Ruchi is a girl with ordinary looks. She is poor in her studies but always gets along nicely with her friends. She always talks in a polite manner to everyone.

### 3.1 Introduction:

By reading the examples given in the above box, you must have started thinking about the meaning and nature of personality.

Generally people wrongly believe that an individual with attractive looks, has a good personality. But in psychology, the term personality has a much broader meaning.

From the psychological point of view, personality is not related to an individual's external physical appearance, but to an individual's characteristic patterns of thinking, feeling and behaving throughout life.

### 3.2 Definitions of Personality -



The word personality is derived from the Latin word "persona" which means mask. During olden days, Greek stage actors used to wear suitable masks as per the need of the characters they used to enact. The meaning of the word personality thus got interpreted as the projected behaviour.

Many psychologists have defined personality as per their own perspectives. **Some of the definitions of personality are as follows :**

1. According to Norman Munn, "Personality is a unique combination of individual's physical structure, needs, interests, abilities and aptitudes."
2. According to Gordon Allport, "Personality is the dynamic organization within the individual of those psychophysical systems that determines his unique adjustments to the environment."

### 3.3 Factors shaping personality :

#### Activity 2

Look at the list given below and discuss with your friends which of these factors

have a stronger influence in shaping personality :

- (1) Nutritious diet
- (2) Junk food
- (3) Physique
- (4) Exercise
- (5) Technology
- (6) Peer group
- (7) Parents
- (8) Neighbours
- (9) Relatives
- (10) Childhood experiences.

An individual's personality gets shaped by a wide variety of factors, which often act in conjunction. Some of the factors shaping personality of an individual are as follows :

#### 1. Heredity :

Heredity implies all those characteristics that an individual inherits from his parents. Heredity affects the physical and mental makeup of a person. For example, inherent physical characteristics like height, physical structure, colour of eyes, etc. It may also influence the self-concept, which in turn may influence the personality make up of an individual.

#### 2. Endocrine glands :

Endocrine glands such as the pituitary, thyroid, pancreas, adrenals gonads, etc. play an important role in shaping personality of an individual. Over secretion or the under secretion of hormones produced by various glands may adversely affect the personality of an individual. For example, an over secretion of the thyroxine hormone produced by thyroid gland leads to nervous tension, irritability, restlessness and emotional instability, etc. which may adversely affect the personality of an individual.

#### 3. Family:

Family is one of the most important factors influencing personality of an individual. The

elements related to family such as structure of family, socio-economic status of family, emotional, academic and cultural environment in family, interactions between family members, child rearing practices followed by parents, etc. have significant effects on personality of an individual.

For example, in a family having warm emotional atmosphere, parents have healthier relations with their children. Love and respect shown by parents towards their children boosts the self-confidence and self-esteem of children. This in turn positively affects the personality of children. On the contrary, over protection, rejection, negligence, etc. shown by parents towards their children leads to low self-esteem and low self-confidence among children which have adverse effects on the personality of children.

#### **4. Peer group :**

Peers are a pervasive aspect of our social life. Peers surround us in our everyday lives from early childhood until old age. Members of the same classroom, workplace or sports club, etc. constitute peer group. The peer group may influence personality in a positive as well as negative manner.

For example, good habits such as studying regularly, developing healthy attitude towards one's own gender and the opposite gender, etc. may be developed by being in a good company of friends. Similarly, the unhealthy habits such as bunking lectures, developing various addictions, showing aggressive tendencies and bullying etc. may be developed by being in a bad company of friends.

#### **Activity 3**

Think how the peer group may influence you with respect to factors given below:

1. Hairstyle
2. Dressing style
3. Eating habits
4. Study habits
5. Communication skills
6. Attitudes
7. Decision making
8. Likes and dislikes, etc.

#### **5. School:**

The school plays an important role in the personality development of students. The elements related to school like the teaching learning process, academic activities and co-curricular facilities provided by school, teachers' rapport with students, school discipline and policies etc. have a significant impact on the personality of students.

For example, a creative, well qualified, experienced and well-mannered teacher acts as a role model for his / her students. Such teachers provide maximum opportunities for the optimum development of the potential of their students. This in turn helps students to develop their personality in a healthier manner.

#### **6. Mass media:**

Internet and other forms of mass media are now deeply integrated in almost everyone's daily lives. Mass media is a source of entertainment, informal education, socialization, etc. to many of us.

Nowadays, majority of adolescents spend more and more time in front of the TV, mobile and computer which may affect their personality.

For example, mass media may help an individual to have an updated knowledge of current affairs, etc. which in turn positively affects the development of an individual's personality.

On the other hand, an excessive addiction of using media may cause disconnection from the world, egocentrism, sleep deprivation, poor academic performance, insecurity, anti-social behaviours, loneliness, etc. which in turn adversely affects the development of an individual's personality.

### 7. Culture:

Cultural factors also play an important role in shaping the personality of an individual. Every culture has its own set of values, beliefs, norms, etc. influencing thoughts, feelings and behaviour patterns of an individual.

For example, leadership qualities, listening skills, entrepreneurial skills, tendencies to cooperate with others, etc. may differ from culture to culture and therefore people from different cultural backgrounds may have different personalities.

### 3.4 Perspectives of studying Personality:

There are various perspectives of studying personality. A brief information of some of them is given in the following table :

**1. Psychoanalytic Perspective :** This perspective emphasizes the importance of early childhood experiences and the unconscious mind in the development of personality.

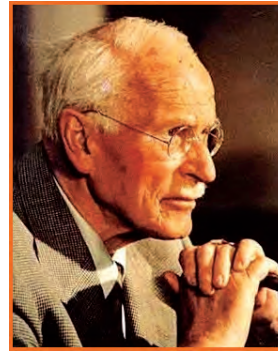
**2. Humanistic Perspective:** This perspective assumes the importance of free will and psychological growth in the personality development of an individual.

**3. Trait Perspective:** This perspective assumes that every individual possesses specific traits in different quantities and so every individual has a unique personality.

**4. Type perspective :** This perspective assumes that every individual has a unique personality type based on his physique, temperament and mental characteristics.

**5. Social Cognitive Perspective :** This perspective emphasizes the importance of observational learning and cognitive processes in the personality development of an individual.

#### 3.4.1 Carl Jung's Theory of Personality :



**Carl Jung**

Carl Jung's theory of personality is one of the personality theories based on the type perspective of studying personality.

Carl Jung, a Swiss Psychiatrist classified people on the basis of mental characteristics

into introverts and extroverts as follows :

- 1. Introverts :** Introvert individuals tend to look within themselves for stimulation. Mostly they are shy and reserved. They prefer to work alone and avoid social contacts.
- 2. Extroverts :** Extrovert individuals are aroused by external stimulation. They are social, outgoing, mix easily with others and prefer jobs that bring them in contact with others.

#### Do you know ?

In real life we find that no one is either completely an introvert or completely an extrovert. Most of us are ambivert in nature.

An ambivert is someone who falls in the middle of the introvert and extrovert continuum. An ambivert individual has a blend of traits of introversion and extroversion.

#### Activity 4

Make two separate lists of jobs requiring more need of talking and jobs requiring less need of talking. Try to find out which of your friends will be suitable for these two types of jobs.

### 3.4.2 Allport's theory of personality :

Allport's theory of personality is one of theories based on the trait perspective to study personality.



**Gordon Allport**

Gordon Allport, an American psychologist identified 18000 separate terms which could be used to describe personality.

Based on these descriptions he suggested the following three basic categories of traits :

A trait is a relatively enduring and consistent way of thinking, feeling and acting. That means the trait is consistently found in an individual over a period of time.

1. **Cardinal Trait** : It is a single trait that dominates an individual's entire personality. The person becomes known specifically for this trait. It dominates and shapes a person's behaviour for their whole life.

For example, a trait of truthfulness was the cardinal trait in Mahatma Gandhi's personality. Similarly, a trait of humanitarianism was the cardinal trait in Mother Teresa's personality, a trait of ambition was the cardinal trait in Napoleon Bonaparte and Power was the cardinal trait in Julius Caesar's personality .

### Cardinal Traits



**Truthful**



**Humanitarian**



**Ambitious**



**Lust for power**

2. **Central Traits** : These traits are general characteristics that form the basic foundation of a personality of an individual. Around 5 to 10 traits that best describe an individual's personality are called central traits.

Central traits are the building blocks of our personality. For example, traits like sensitivity, sociability, self-confidence, diligence, honesty, etc. are the central traits possessed by an individual.

3. **Secondary Traits** : These traits appear only in specific situations and hence are narrow in effect. Such traits play a very minor role in determining the personality of an individual because such traits are situational. For example, getting anxious when speaking to a group, being impatient while waiting in a queue, etc. are the secondary traits possessed by an individual.

### 3.4.3 Big Five Factor Model of personality : (OCEAN)

Big five factor model is one of the

personality theories based on the trait perspective to study personality.



Robert McCrae



Paul Costa

Robert McCrae and Paul Costa (1987) developed a theory of personality explaining the five major factors of personality. According to them personality traits are considered as basic tendencies that are rooted in biology and that interact with external influences including culture in shaping the skills, habits, tastes, and values of the individual. The five major factors (traits) of personality are as follows :

**(1) Openness to experience (O) :** Openness to experience is a trait related to appreciation for art, emotion, adventure, unusual ideas, creativity, imagination, curiosity, and variety of experience.

People who are open to experience are curious, imaginative, and creative whereas those who are less open to experience are non-creative and lack aesthetic sense.

**(2) Conscientiousness (C) :** Conscientiousness is a trait showing tendency to display self-discipline. It is related to the way in which people control, regulate, and direct their impulses.

People having high conscientiousness are well organized, responsible, dependable, hardworking whereas people having low conscientiousness are unorganized, irresponsible, spontaneous and careless.

**(3) Extroversion (E) :** Extroversion is a trait characterized by breadth of activities and energy creation from external means.

People having high extroversion are talkative, enthusiastic, open minded, sociable, assertive, and courageous. On the other hand, people having low extroversion are less talkative, shy, alone and less involved.

**(4) Agreeableness (A) :** The agreeableness is a trait showing an ability of an individual to get along with people and concern for social harmony.

People having high agreeableness are kind, loving, caring, friendly and cooperative whereas people having low agreeableness are uncooperative, jealous, hostile and argumentative.

**(5) Neuroticism (N) :** Neuroticism is a trait showing the tendency to experience negative emotions, such as anger, anxiety, or depression.

People having high neuroticism are anxious, depressed, irritable, fearful, impulsive, angry and unstable. People having low neuroticism are balanced, calm and stable.

### Activity 5

Go to the link given below and find out your score on Big Five Personality Test.

<https://nobaproject.com/modules/personality-traits>

## 3.5 Measurement of personality :

Psychologists seek to measure personality through a number of methods. Behavioural analysis techniques, self-report inventories, projective techniques and psycho-analytical methods of measuring personality are as follows:

### 3.5.1 Behavioural Analysis:

The behavioural techniques such as interview and observation, etc. help in assessing

the personality of an individual. These behavioural techniques can be explained as follows:

**(a) Interview :**

Interview is the most common method of measuring personality. An interview is a process in which an interviewer tries to collect information about the personality of an interviewee by asking him / her various questions.

The factors like time taken to give answers, gestures, postures, body movements, etc. of an interviewee are also taken into account while measuring personality of an interviewee.

The following are the main types of interviews :

1. **Structured interview :** Structured interview is a type of interview in which total number of questions to be asked to the interviewee, the sequence of questions etc. factors are predetermined. No questions are added or deleted on the spot. Generally, industrial psychologists use structured interview while selecting a particular employee for a particular job.
2. **Unstructured interview :** Unstructured interview is a type of interview in which the total number of questions to be asked to the interviewee, the sequence of questions etc. factors are not predetermined. Depending on the responses of an interviewee, some questions are added or deleted on the spot. Generally, clinical psychologists, counselling psychologists, health psychologists, sport psychologists, etc. use unstructured interview for collecting detailed information about personality of their clients.

**Activity 6**

Take an interview of any two of the following individuals and try to collect information about some unique features of their personalities :

- (1) Principal of your college
- (2) Your psychology teacher
- (3) A businessman from your locality
- (4) A salesman from your locality
- (5) A politician from your locality
- (6) A lawyer from your locality .

**(b) Observation :**

Observing an individual in various situations is another important method of personality measurement. For example, a psychologist can observe how a child behaves when the teacher is not present in the classroom or how a factory worker behaves in a workshop when the supervisor is not present.

Observation method proves very helpful if it is used by a trained psychologist (observer) and with clear objectives and guidelines for observations.

Naturalistic observation, laboratory observation, participant observation, non-participant observation etc. are some of the types of observations that are helpful to collect information about the personality of an individual.

**Activity 7**

Use observation method and try to get few ideas of the personalities of the following individuals :

- (1) Traffic controller
- (2) News reporter
- (3) Private detective
- (4) Interior designer
- (5) Nurse
- (6) Teacher.

**3.5.2 Self report inventories:**

In self-report technique an individual provides information of his / her own personality

by responding to questions / sentences set in a particular inventory. Minnesota Multiphasic Personality Inventory (MMPI), 16 Personality Factors (PF) by Cattell, Myers-Briggs Type Indicator (MBTI), High School Personality Inventory (HSPQ) are some of the examples of self report inventory.

### Activity 8

Look at the specimen of self-report inventory given below.

	Strongly Disagree	Somewhat Disagree	No Opinion	Somewhat Agree	Strongly Agree
I am easygoing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have high standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy time alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I work well with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I dislike confrontation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer crowds over intimacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 3.5.3. Projective methods:

Projective methods emerged from the psychoanalytic school of thought. Projective methods are intended to uncover feelings, desires, and conflicts that are hidden at the unconscious level.

In projective test situations, an individual responds freely to relatively unstructured or ambiguous materials. While responding, individuals project their own personalities onto the unstructured stimulus, often revealing personal conflicts, motivations, coping styles, and other characteristics. Some of the major Projective tests are as follows:

### (a) Rorschach's Ink-Blot Test :



This test was developed by Hermann Rorschach in 1921. It uses ten irregular-ink-blots (five in

black and white, five in colour.) standing against a white background. Each inkblot is shown in a fixed number of ways and the subjects are asked to describe what they see in each card. The subjects are allowed to hold the card in any position they want, whether it's upside down or sideways. Analysis of this test requires trained and skilful examiner.

### (b) Thematic Apperception Test (TAT) :



The TAT was developed by Morgan and Murray in 1935. It requires the individual to look at the picture and to interpret it by telling a story. The individual is invited to say what led up

to the scene in the picture. Why such events occurred, what is currently happening and what the consequences will be?

### (c) Sentence-completion test :

In this test an individual is given a series of incomplete (partial) sentences and he/she is asked to complete them in his/her own words. For example, I feel anxious when .....

### Activity 9

Sentence completion test may have such sentences :

- (1) I feel afraid of .....
- (2) When something goes wrong .....
- (3) When someone troubles me .....
- (4) For me, my college is .....
- (5) I wish .....

## Summary

- Personality is the dynamic organization within the individual of those psychophysical systems that determines his/her unique adjustments to the environment.
- Many factors shape personality of an individual.
- Psychoanalytical perspective, humanistic perspective, trait

perspective, type perspective, social cognitive perspective are some of the important perspectives of studying personality.

- Psychologists have developed various techniques of measurement of personality. These techniques include behavioural analysis, self-report techniques and projective methods.

## Important Concepts

- Endocrine glands
- Type approach
- Trait approach
- Introvert
- Extrovert

- Conscientiousness
- Neuroticism
- Cardinal traits
- Central traits
- Projective methods

## Important Psychologists

- **Gordon W. Allport** : American psychologist, he was one of the first psychologists to focus on the study of the personality. He identified 18000 separate terms which could be used to describe personality. He suggested three basic categories of traits i.e. cardinal, central and secondary traits.
- **Carl Jung** : Swiss psychiatrist and founder of analytical psychology. He classified people into two personality types viz. introverts and extroverts.

- **Robert McCrae** : American psychologist, co-author of big five personality model along with Paul Costa.
- **Paul Costa** : American psychologist, co-author of big five personality model along with Robert McCrae.
- **Starke Hathaway** : He was one of the co-author's of Minnesota Multiphasic Personality Inventory. MMPI is the most frequently used personality tests in the field of mental health.

## Important Psychologists

- **J. C. McKinley** : American psychologist who constructed MMPI along with S. R. Hathaway.
- **Raymond B. Cattell** : He developed 16 Personality Factors (16 PF) for identifying primary traits.

- **Henry Murray** : American psychologist who developed Thematic Apperception Test (TAT).
- **Hermann Rorschach** : Swiss psychologist who developed ink blot test, one of the oldest projective method.

## Exercises

### Q. 1 Choose the correct option and complete the following statements:

1. A person who is shy and reserved is called an .....  
(a) introvert (b) extrovert (c) ambivert
2. The ink blot test was developed by psychologist .....  
(a) Murray (b) Rorschach (c) Morgan
3. .... traits are the dominant characteristics of a person.  
(a) Cardinal (b) Secondary (c) Central

### Q. 2 Match the following pairs.

- | Group 'A'                | Group 'B'                     |
|--------------------------|-------------------------------|
| 1. Self report technique | (a) Interview                 |
| 2. Behavioural analysis  | (b) MMPI                      |
| 3. Projective methods    | (c) Permanent characteristics |
|                          | (d) TAT                       |

### Q. 3 State whether the following statements are true or false:

1. Personality is merely related to external appearance.
2. People with high neuroticism are emotionally reactive.
3. Children from families having a warm emotional atmosphere are well adjusted.

### Q. 4 Explain the following Concepts in 25 to 30 words:

1. Personality

2. Trait
3. Sentence completion test
4. Structured interview
5. Unstructured interview

### Q. 5 Write short notes on the following :

1. Gordon Allport's trait theory of personality
2. Effect of mass media on personality development

### Q. 6 Answer the following questions with given points in 100 to 150 words each.

1. Explain the Big Five Factors model of Personality.  
Points : (i) Neuroticism  
(ii) Extroversion  
(iii) Openness to experience  
(iv) Agreeableness  
(v) Conscientiousness
2. Explain the factors influencing personality.  
Points : (i) Family  
(ii) School  
(iii) Peer group  
(iv) Culture
3. Explain the various methods of personality measurement.  
Points : (i) Behavioural analysis  
(ii) Self report technique  
(iii) Projective method



## 4. Cognitive Processes

### 4.1 Introduction

### 4.2 Attention

#### 4.2.1 Meaning and definitions of attention

#### 4.2.2 Aspects of attention

### 4.3 Perception

#### 4.3.1 Meaning and definition of perception

#### 4.3.2 Phenomena associated

### with perception

### 4.4 Thinking

#### 4.4.1 Definition and core elements of thinking

#### 4.4.2 Types of thinking

### 4.5 Learning

#### 4.5.1 Meaning and definition of learning

#### 4.5.2 Processes of learning

### Learning objectives:

1. To define and demonstrate an understanding of the meaning of Attention, Perception, Thinking and Learning.
2. To analyse the various aspects of attention and formulate own examples for better understanding.
3. To illustrate an understanding of the phenomenon associated with perception and explain each in detail.
4. To analyse and explain the various stages in the process of problem solving and creative thinking.
5. To summarise explain and elaborate the various processes of learning.

### Activity 1

Read the following examples and try to name the cognitive process described in each of them:

- (1) Reena immediately sensed the burning smell of pizza put in the oven.
- (2) Mahesh always pays attention to what the psychology teacher teaches in the class.
- (3) Professor Mr. Patil met one of his former students all of a sudden. He tried to recall the name of his student.
- (4) Saif was reading a story book and so he

forgot to complete his homework.

- (5) After considering all pros and cons, Dinesh took a decision of changing his business.

### 4.1 Introduction :

Cognitive processes are all those higher-level functions of the brain by which we become aware of and understand the world around us. Cognitive processes are studied in a branch of psychology called cognitive psychology.

The processes like, sensation, attention, perception, learning, memory, forgetting,

thinking, problem solving, reasoning, decision making, etc. are the examples of cognitive processes. In this chapter we are going to study few of these cognitive processes.

## 4.2 Attention :

### 4.2.1. Meaning and definitions of attention :

We continuously sense many stimuli from our surroundings through our sense organs. However, we do not become aware of all of them at one particular time. We focus and become aware of only few stimuli from them. Therefore, attention is considered as the selective process. Many psychologists have defined attention in various ways. **Some of the definitions of attention are as follows :**

1. **According to Guildford**, "attention is the process of focusing on one or few objects, persons or situations from among many from the field of awareness".
2. **According to Norman Munn**, "attention is the mental process of bringing few stimuli into the center of awareness out of many stimuli present."

#### Do you know ?

Intensity of stimulus, size of stimulus, repetition of stimulus, movement of stimulus are some of the objective factors affecting attention. Similarly, interest, motives, mind-set, attitudes, etc. are some of the subjective factors affecting attention.

### 4.2.2 Aspects of Attention :

There are various aspects of attention. Some of them are as follows :

1. **Span of attention** : Span of attention can be described as the total number of stimuli that we can become clearly aware of in a single glance. Our span of attention is very limited. For a normal adult the span of attention varies between 7 to 8 digits or alphabets. This is the reason why digits in postal pin code or vehicle numbers are never more than this limit of 7 to 8 digits. The factors like age, intelligence, practice, experience, habits, etc. may affect the span of attention. For example, due to practice, the span

of attention of a telephone operator or a typist may be greater than that of an ordinary individual.

2. **Distraction of attention** : After focusing on a specific stimulus, attention drifts towards another stimulus due to some external or internal disturbances. This is known as the distraction of attention. Many external factors such as intensity, size, movement etc. of stimuli, may distract attention.

For example, while studying, your attention may get suddenly distracted due to a film song played in a high volume by your neighbours. Sometimes internal factors like disturbed physical or psychological state, lack of interest, mental set can also cause distraction of attention. For example, your attention may get distracted if you have a stomach ache.

#### Activity 2

Discuss with your psychology teacher about how to increase your attention in studies by minimizing the distractions that may be caused by the following distractors :

- (1) Social media
- (2) Mobile
- (3) Environmental distractions
- (4) Physiological discomfort, etc.

3. **Division of attention**: We observe people doing two things simultaneously, like reading newspaper while eating, or knitting while watching TV. In a true sense, individual cannot divide attention to two tasks simultaneously. In both these given examples, the individual is performing one task mechanically while paying attention fully to the other task. For example, eating or knitting is done mechanically while the person is paying attention fully to the other task like reading newspaper or watching TV. If a person needs to pay attention to both the tasks simultaneously then it results into increase in mistakes, decrease in efficiency, confusion, etc.

For example, if a person is asked to read a newspaper and thread a needle simultaneously, the person will not be able to do these both the tasks simultaneously without any mistake.

### Activity 3

Conduct the following experiment on yourself and find out whether the division of attention is possible or not.

1. **Task 1 :** Write alphabets from A to Z without any break for one minute. If you reach Z, then start with A up to Z again. Note your mistakes.
2. **Task 2 :** Say aloud only the odd numbers like 1, 3, 5, 7, 9....and so on for one minute. Note your mistakes.
3. **Task 3 :** Do Task 1 and Task 2 simultaneously for one minute i.e. write alphabets from A to Z and simultaneously say aloud only the odd numbers. Note your mistakes and conclude.

**4. Fluctuation of Attention:** Attention keeps oscillating like the pendulum of the clock. We cannot pay attention to a single stimulus for a long period of time. Our attention shifts towards other stimulus for a fraction of time and comes back to the original stimulus. This is known as fluctuation of attention. The factors like fatigue, low interest, attractiveness of other stimulus, etc. may lead to fluctuation of attention.

For example, when you pay attention to what your teacher is teaching, your attention temporarily shifts to a friend sitting beside you or to a peon standing in the corridor and again you pay attention to what your teacher is teaching.

### 4.3 Perception :

#### Activity 4

Imagine the following situations and try to understand the nature of perception :

1. Imagine that a person is talking to you in a language, which is unknown to you. (For example, in Chinese). In such a situation, as you have no past experience of Chinese you will not understand (perceive) what exactly the person is talking. You will merely sense (i.e. auditory sensation) that the person is

talking.

2. Imagine that a person is talking to you in a language, which is known to you. (For example, in English / Marathi). In such a situation, as you have past experience of English / Marathi you will understand (perceive) what exactly the person is talking.

From the above examples, you will understand that **Perception = Sensation + Assigning meaning to a sensation based on the past experiences.**

#### 4.3.1. Meaning and definition of perception :

In day to day life, we can easily sense different objects, sounds, textures, tastes, odours etc. to which we have paid attention and can name them. Thus, in understanding the world around us, sensation occurs first, followed by the attention and finally interpretation of the stimulus by the brain. This process of interpretation of stimulus is known as perception. Interpretation of any stimulus requires past experience. Thus, perception can be defined as "the process of assigning meaning to the information received about the environment based on the past experiences."

#### 4.3.2 Phenomena associated with perception :

Some of the phenomena associated with perception are as follows :

##### 1. Top-down and Bottom-up processing :

#### Activity 5

Look at the following boxes and try to understand Top-down and Bottom-up processing :



Most of you must have perceived third stimulus given above as a letter B instead of number 13. This happens because of **Top-down** processing.

**Top-down processing :** If we pay attention to each of our senses all the time, our senses would be overwhelmed. Therefore, many times our brain uses the context or general knowledge while perceiving a particular stimulus. This process is called as a top-down processing. When we utilize top-down processing, our ability to understand information is influenced by the context in which it appears.



Most of you must have perceived the third stimulus given above as a number 13 here. This happens because of **Bottom-up** processing.

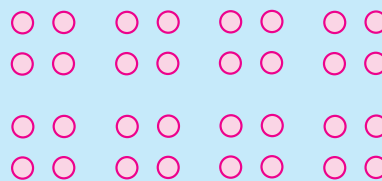
**Bottom-up processing :** Many times our perceptual experience is based entirely on the sensory stimuli and is not influenced by any context in which it appears. In such situations we take in energy from the environment and convert it to neural signals (sensation) and then try to interpret it (perception). This process is called as bottom-up processing. Bottom-up processing is a process that starts with an incoming stimulus and works upwards until a representation of the object is formed in our brain.

## 2. Laws of perceptual organization :

Our brain has tendencies to organize our sensations as a meaningful whole. This was explained for the first time by a German psychologist Max Wertheimer in 1923 in the form of laws of perceptual organization. Some of the laws of perceptual organization are as follows :

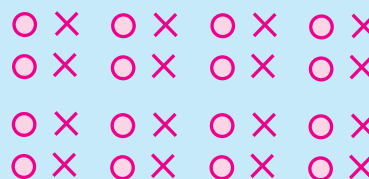
**(a) Law of proximity :** According to this law of perceptual organization, the stimuli that are near to each other are perceived together than

stimulus that are far away from each other. Look at the following example,



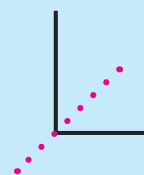
In this figure, we perceive pairs of dots in each line because the dots which are near to each other are perceived together. So instead of perceiving a line of 8 dots, generally a line of four pairs of dots is perceived.

**(b) Law of similarity:** According to this law of perceptual organization, the stimuli that are similar to each other are perceived together than stimuli that are distinct from each other. Look at the following example,



In this figure, we perceive 4 alternate vertical lines each of circles and crosses as similar stimuli are perceived together. Generally, we do not perceive 4 horizontal lines each having circles and crosses in alternate sequence.

**(c) Law of continuity :** According to this law of perceptual organization, there is a tendency to perceive a stimulus in continuation according to its established direction. According to this law, when two stimuli intersect, the continuation of each stimulus is perceived apparently.



In this figure, a straight vertical line and a straight horizontal line are perceived together as a letter 'L' and a cutting line is perceived separately as a line following the smoothest path. Generally, we do not perceive here four different lines going in different directions.

(d) **Law of closure** : According to this law of perceptual organization, there is a tendency to perceive an incomplete stimulus in a complete manner. Our brain fills up the gaps in incomplete stimulus and we perceive it as a meaningful figure.



In this figure, we fill in the gaps and perceive it as a triangle and square. Generally, we do not perceive here the three or four separate lines going in different directions.

#### 4.4 Thinking :

##### Activity 6

Read the imaginary situation given below and try to understand the meaning of the thinking process:

Imagine that your friend asks you to help him to solve a mathematical problem. You are not able to answer him immediately. After waiting for a few moments he urges you to answer quickly. You might respond, "Wait, I am thinking on it". What exactly are you doing when you are thinking?

While you are thinking, you might be recognizing that there is some mathematical problem, retrieving various formulae taught to you, finding out why a particular formula may or may not work.

##### 4.4.1 Definition and core elements of thinking:

"Thinking is the mental activity that uses various cognitive elements and processes that involves manipulation of information, problem solving, reasoning as well as decision making." If you analyse all the mental activities involved in thinking, you will find that thinking seems to be private and internal to ourselves. While thinking, we create a world within us and we run through various actions symbolically rather than in reality. The following are some of the core elements of thinking :

1. **Mental representation** : Mental representation is "the mental imagery of a thing that is not currently physically available to the senses." Mental representation is a coded internal sensation.

For example, if you are asked to close your eyes and imagine a peacock in your mind, a visual image of a peacock comes in your mind with all its vivid colourful plumage, shape, size and even distinctive sound. This is a mental representation or an internal representation of a peacock.

Internal representations are acquired through direct experiences through sense organs or through indirect experiences such as narrations, pictures, videos, etc. Internal representations form the basis for all the cognitive processes.

2. **Concept** : Concept is "an internal representation which the brain uses to denote a certain classes of things in the world". The concepts involve extraction of some 'idea' on the basis of similarities and differences among many sensations.

For example, a child forms a mental representation of a cow, thereafter he starts deriving some "idea" about what a cow means, i.e. it is a four legged animal with head, body, tail, horns, etc. He is thus forming a concept of a cow.

Concepts form the basis for all the cognitive processes. Various concepts act as building blocks by connecting with each other to form more complex concepts like schema.

3. **Schema** : A schema is "an internal representation that organizes knowledge about related concepts and relationships among them". Schemata influence most of the cognitive processes.

For example, when a child visits a zoo, the concepts of animals, home, cage, display, public, etc. gets activated simultaneously and a connection is established between them. This leads to formation of schema of a zoo.

4. **Language** : Language is a system of symbols. Mental representations, concepts and schemata are all better represented by language. For example, the word 'cat' stands for actual cat, so the word 'cat' is a symbol for a cat. Thinking by using language is a distinctive feature of human being's thinking process.

#### 4.4.2 Types of thinking :

##### 1. Problem Solving :

Problem solving refers to the process of finding solutions to problems encountered in life. It is one of the types of thinking. Problem solving includes the following steps :

- (a) **Defining the problem** : In this step a person needs to identify and define the problem correctly. If a person defines the problem incorrectly, he will never reach the solution. For example, when a baby is crying due to a stomach ache and if his/her mother wrongly interprets it as due to hunger, the problem remains unresolved.
- (b) **Generating alternative solutions** : For every problem there are various solutions, some effective while some may turn out to be ineffective. In this second step of problem solving a person tries to search for all those possible actions that can solve a problem. For example, if a person is suffering from a severe headache, he/she may start thinking of taking rest, listening to music, meditating, taking medicines, etc.
- (c) **Selecting a solution** : In this third step of problem solving, out of many possible solutions, the person selects one on the basis of the reasoning applied. Reasoning ability of an individual helps him/her to solve problems more realistically. For example, if a person recalls that meditation helped him/her in reducing his/her headache last time, he/she will select the same solution for the problem in the current situation.

(d) **Implementing and follow up on the solution**: In the last step of problem solving a person actually tries out a certain solution and evaluates the outcome on the basis of whether it has helped him/her to resolve the problem or not. If the problem is still unresolved, a person might have to go to one of the previous steps and carry out the problem solving procedure again.

##### 2. Creative thinking:

Creativity is characterized by the ability to perceive the world in new ways, to find hidden patterns, to make connections between seemingly unrelated phenomena, and to generate solutions. Scientists, musicians, poets, fashion designers, interior decorators, etc. always think in a creative way. Creative thinking seems to be having following four sequential stages :

- (a) **Preparation**: It is the stage of formulating the problem and gathering information, materials, etc. for finding new solutions. Creative ideas do not come from a vacuum. Many tentative solutions are tried out and discarded. No progress seems to be made in this stage.

For example, if a poet wants to write a song for a particular movie, he may start preparing for it by brainstorming, reading, gathering his own past experiences, or anything that can help him to move towards finding a new solution.

- (b) **Incubation** : After preparation, a person starts working on a problem but may not get the required solution. This initial failure leads to the stage of incubation. During this stage the person is so frustrated that he /she thinks of giving up. The person then leaves the problem and focuses on other things which are unrelated to the problem. Incubation may help the person to work on the problem without consciously thinking about it. This period, though appears to be non-fruitful, is followed by a period of sudden appearance of the solution.

For example, a poet may start writing some lines for his new poem, but may feel that the lines written are inappropriate. He may write for 2 days straight, then may give up and then may not write for weeks. During these weeks of incubation, he may follow his routine like going to gym, eating, watching movie, talking to friends, etc.

- (c) **Illumination** : After incubation, suddenly, like a flash of light, the correct solution appears in front of the mind's eye and the person experiences a rush of excitement. All the bits and pieces of ideas which appeared to be unrelated earlier fall into place. The solution that appears is nearly next to perfect. A person experiences an emotional reaction of joy, knowing that he /she has found a new idea, a solution.

For example, a poet will suddenly find the exact lines that he was searching for, for weeks together. This will be the “Ahaa! Moment” for him.

- (d) **Verification** : Following the euphoria of previous stage, the new solution still needs to be tested. In most cases it requires only minor changes. But sometimes it may require a lifetime of study, testing and retesting.

For example, a poet will write his new poem on a paper, will read it again and again, will check whether any word / line is still to be changed.

## 4.5 Learning :

### 4.5.1 Meaning and definition of learning :

You might think of learning in terms of what you need to do before an upcoming exam, or acquiring new skills like dancing or cycling, but it is only a small segment of the vast learning process which encompasses all arrays of life including school learning, learning various skills, learning about places and people and many more.

## Activity 7

- (A) **Read the following examples and identify the duration of change in the behaviour :**

1. Rohit, an alcoholic abuses people around him under the influence of alcohol.
2. Uday is able to draw human figures well.

You must have identified that the change in the behaviour of Rohit is temporary and the change in the behaviour of Uday is relatively permanent.

- (B) **Read the following examples and identify the reasons for a change in the behaviour:**

1. Pratik learnt to ride a bicycle by continuous repetitions.
2. Akshay got an electric shock after putting his finger in the socket and so has stopped doing so.

You must have identified that the change in the behaviour of Pratik must be due to practice and the change in the behaviour of Akshay must not be because of practice, but rather must be because of experience.

With reference to the examples given in the above box, we can understand that :

1. Any temporary change in the behaviour is not considered as learning.
2. Learning involves relatively permanent change in the behaviour.
3. Learning may take place because of practice.
4. Learning may take place because of experience.

Thus, learning can be defined as “a relatively permanent change in the behaviour that occurs due to experience or practice.”

### 4.5.2 Processes of learning :

Learning is a complex process. There are

many processes of learning. Some of the processes of learning are as follows:

### 1. Learning by Classical Conditioning :

Learning by Classical Conditioning was explained for the first time by a Russian physiologist Ivan Pavlov (1928) through his experiment on a dog. He inserted a tube surgically in the dog's salivary gland so that he could measure the amount of salivation. He then presented the sound of the bell and food one after the other several times and measured how much the dog salivated. After several trials the dog started salivating to the sound of the bell even when the food was not given. Based on his findings Pavlov gave a theory of learning called Classical Conditioning. In our daily life we learn many things by classical conditioning. For example, when a small child is given an injection, he starts crying due to pain. A small child slowly understands that whenever he visits the doctor, he is given an injection. When he understands the connection between 'doctor' and 'injection' he immediately starts crying as soon as he is taken to the doctor.

#### Activity 8

Try this experiment and understand the nature of learning by classical conditioning:

1. 'Clap' right in front of your friend's eyes. Your friend will close his eyes.
2. Now every time say 'yes' and immediately 'clap' right in front of your friend's eyes. Do it several times. Your friend will close his eyes every time.
3. After that once you just say 'yes' but don't 'clap'. Your friend will still close his eyes!

This means that your friend connected 'yes' with 'clap'. So the response of closing the eyes which was originally given to the clap got connected to the word 'yes'. Here two stimuli i.e. 'clap' and word 'yes' got connected.

### 2. Learning by Operant Conditioning :

Learning by an Operant Conditioning was explained by an American psychologist Burrhus Frederic Skinner. He performed an experiment in which a rat was put in a special box that contained a lever. If the rat pressed that lever, he was given food. Gradually the rat learnt to press the lever to get food. Here the rat is learning to connect his behaviour of pressing the lever with receiving the food. According to Skinner certain behaviours may be learnt to gain positive consequences. Similarly, he also demonstrated that certain behaviours may be learnt to avoid negative consequences.

#### Activity 9

Answer these imaginary situations and try to understand the nature of learning by operant conditioning :

1. If your teacher deducted five marks for late submission of assignment, will you be on time for the next submission or be late?
2. After much hard work if you win a dance competition, are you likely to participate next year too?

In the first imaginary situation, you are less likely to repeat your behaviour because your behaviour yielded you some negative consequences. While in the second imaginary situation you are more likely to repeat the behaviour because it led to some positive consequences.

**3. Learning by Cognitive Processes :** Just when Skinner and Pavlov were talking about connections and consequences of behaviour, Edward Tolman demonstrated that though rats in his experiment were not given any food, they still learnt about the different pathways in the maze. That means rats created 'maps' in the mind just for the sake of it. His experiment demonstrated that learning may take place in the

'mind' using 'mental' processes, what we call cognitive processes now.

**4. Learning by assimilation and accomodation :** Jean Piaget explained that we learn many things by assimilation and accommodation. Jean Piaget is of the opinion that on the basis of the new experiences or new information we keep refining the existing concepts that we have. For example, when a child forms a concept of a cow, he/she extracts some general rule or characteristics to form a concept of a cow. But when he encounters a buffalo, he/she notes the differences between the

cow and buffalo and forms a separate concept of a buffalo. This process of forming and refining our concepts on the basis of the similarities and differences is called learning by assimilation and accomodation.

**5. Learning by observation :** According to Bandura, we learn many things by observing someone's behaviour and later reproducing it. Many of our skills like eating, walking, writing, etc. are learnt by observing others. We observe and imitate not only the movements of the body but also certain ways of thinking, evaluating, judging and decision making, etc.

### Summary

- Cognitive processes include all processes underlying mental activities like attention, perception, learning, memory, thinking, problem solving, etc.
- Attention involves selecting few stimuli from many and bringing them into the center of awareness. There are various aspects of attention viz. span of attention, distraction of attention, division of attention and fluctuation of Attention.
- Perception is the process of assigning meaning to the information that we receive about the environment. We make use of both top down processes and bottom up processes while perceiving. There are various laws that govern perceptual grouping i.e. proximity, similarity, continuity, closure, etc.
- Thinking involves mental activity that uses various cognitive elements and processes that are involved in manipulation of information resulting

in problem solving, reasoning, decision making, judgement, etc. The core elements used while thinking are mental representation, concepts, schemata and use of language.

- There are various types of thinking like problem solving, creative thinking, etc. The major stages of problem solving are defining problem, generating of alternative solutions, selecting from among them, implementing and follow up of the solution. The major stages of creative thinking are preparation, incubation, illumination and verification.
- Learning involves relatively permanent change in behaviour due to practice or experience. Various processes are involved during learning viz. learning by classical conditioning, learning by operant conditioning, learning by cognitive processes, learning by assimilation and accommodation, learning by observing, etc.

## Important Concepts

- Attention
- Perception
- Thinking
- Learning

- Schema
- Mental Representation
- Concept

## Important Psychologists

- **Max Wertheimer** : He was an Austrian psychologist who gave laws of perception grouping.
- **Ivan Pavlov** : He was a Russian physiologist later became psychologist, gave the first behavioural theory of learning called Classical Conditioning According to him learning takes place due to connection established between two stimuli due to close association.
- **Burrhus Frederic Skinner** : He was an American psychologist and gave another behavioural theory of learning to show that during learning, connections are

established between behaviour and it's consequences.

- **Edward Tolman** : He was an American psychologist who for the first time demonstrated that even without reward or punishment learning may occur at the cognitive level.
- **Jean Piaget** : He was a Swiss psychologist and he demonstrated learning of concept and schema by the processes of assimilation and accommodation.
- **Albert Bandura** : He showed how learning occurs due to observation of the behaviour of a person and later reproduction of that behaviour.

## Exercises

### Q.1 Choose the correct alternative and complete the sentences:

- 1) When we select few stimuli from the environment and bring them into the center of our awareness, it is called \_\_\_\_\_.  
a. attention   b. perception   c. thinking
- 2) Ivan Pavlov is known for explaining learning by \_\_\_\_\_.

a. classical conditioning   b. operant conditioning   c. observation

- 3) When we organise the information from the environment, group them and give some meaning, that process is called \_\_\_\_\_.  
a.attention   b. perception   c. thinking
- 4) In operant conditioning the experiment was conducted on \_\_\_\_\_.  
a. dog   b. rat   c.monkey

- 5) The change in behaviour due to practice or experience is known as \_\_\_\_\_.  
a. perception b. thinking c. learning

**Q. 2 Answer briefly in 30 to 40 words:**

- 1) What is fluctuation of attention?
- 2) Give three examples of top down processes in perception.
- 3) What is meant by thinking?
- 4) Describe any two processes of learning.

**Q. 3 Classify the following into Mental Representation, Concepts and Schemata:**

- 1) Image of your mother in your mind
- 2) Building
- 3) Tree
- 4) School
- 5) Theater
- 6) Table
- 7) Neil Armstrong

**Q. 4 Find odd one out :**

- 1) Schema, Perception, Attention, Thinking
- 2) Searching solution, Defining problem, Incubation, Implementation of the solution
- 3) Reasoning, Judgement, Decision making, Relaxing
- 4) Concept, Schema, Solution, Mental Representation

**Q. 5 Identify if the following behaviours are due to learning or not. Give reasons for your answers.**

- 1) After much hard work you are able to perform a dance step properly.
- 2) In spite of getting hurt, Shayana, a five year old child, continues to play with knife.
- 3) Once Hanif had to pay fine for breaking the signal while driving a car. Now he makes sure to stop the car at red signal.

**Q.6. Answer the following questions with the help of the given points :**

- 1) Explain the stages of problem solving.  
Points : (i) Defining problem  
(ii) Generating alternative solutions  
(iii) Selecting solution  
(iv) Implementing and taking follow up of the solution.
- 2) Explain the stages of creative thinking.  
Points : (i) Preparation  
(ii) Incubation  
(iii) Illumination  
(iv) Verification.

**Q.7. Answer the following questions in detail:**

- 1) Explain the laws of perceptual organization.
- 2) Explain the core elements of thinking.
- 3) With the help of your own examples explain the difference between distraction of attention and fluctuation of attention.



## 5. Emotions

### 5.1 Introduction

#### 5.1 History of emotions – Theories of emotions

### 5.2 Basic emotions

#### 5.2.1 Plutchik's model

### 5.3 Physiological changes during emotions

### 5.4 Emotional well being

#### 5.4.1 Achieving Emotional well being

#### 5.4.2 Benefits of Emotional well being

### 5.5 Emotional Abuse

### 5.6 Managing emotions

#### 5.6.1 Anger management

### Learning Objectives

1. To understand the historical basis of theories of emotions and apply to create examples of their own.
2. To create an awareness of basic emotions with emphasis to the Plutchik's model and identify with their own emotional growth.
3. To highlight the physiological changes during emotions and the importance of emotional well-being in their life.
4. To acquaint them with the various techniques of managing their emotions with reference to anger management and apply the same to their life.

### 5.1 Introduction :

Emotions have great importance in human life. We cannot imagine human life without emotions. Just as food appears tasteless without salt. Life is meaningless without emotions. Without emotions life will be boring, monotonous and mechanical. They make our life colourful. Depending on how we handle and express them they make our life purposeful and meaningful.

### 5.1 HISTORY OF EMOTIONS

#### Activity 1

#### THINK AND ANALYSE

Think of the following situations and note down what will be the experience of each person in that situation.

1. It's Mira's std 12<sup>th</sup> result today. She comes

to know that she has topped in the college.

2. Rahul's mother passed away just few days before his 18th birthday.
3. Suchita was ridiculed by her classmate for wearing old fashioned clothes.
4. Yash had a fight at home because his parents were not allowing him to go for a late night party.

If you observe each of the adolescents above, you will realize that as each of them are going through a different kind of situation, they will experience different emotions. Mira will experience happiness due to her success whereas Rahul will experience sadness. Suchita will experience shame whereas Yash will be angry at his parents. "Our life is full of emotions. We all live at the mercy of our emotions. Our

emotions influence and shape our desires, thoughts and behaviours and above all our destiny." – Dr. T.P. Chia

Emotions can be defined as a combination of bodily arousal, expressive behaviour, thoughts and feelings. Imagine you are walking alone on a lonely road in the night and you see some people in the corner of one lane. You suddenly become vigilant, there are thousand thoughts running in your mind wondering what they must be doing. Calculating the risk that they might cause harm, you have cold feet and prepare yourself to run as you are too scared.

Historically different theories have tried to understand the relationship between our emotions, thinking and behavior. Let's see some of the historical theories of emotions.

### 1. James – Lange theory:

William James and Carl Lange believed that we experience emotions because of our physiological arousal. So according to them we don't cry because we feel sad but we feel sad because we cry.

### 2. Cannon – Bard theory:

Walter Cannon and Philip Bard disagreed with James- Lange saying that only physiological arousal will not lead to

experiencing a particular emotion because we may experience the same physiological arousal but emotions can be different. Eg: we don't cry only when we are sad but we also cry when we are pleasantly surprised or extremely happy. So according to them we experience physiological arousal simultaneously yet separately. When we experience an emotion, our sympathetic nervous system interprets the stimulus which leads to physiological arousal like crying or heart palpitation etc. The same information is also interpreted in the brain by which we become aware of the emotion.

### 3. Schachter and Singer's Two Factor theory:

Many researchers including Schachter and Singer accept that our thoughts (which include our perceptions, memories and interpretations) will also contribute in the experience of emotions. Our physiological arousal will interact with our thinking process and after that we will experience emotions.

Newer psychologists also acknowledge the role of specialized brain areas like amygdala in the experience of emotions. According to them depending on the complexity of various emotions, we prefer to process them differently in our brain.

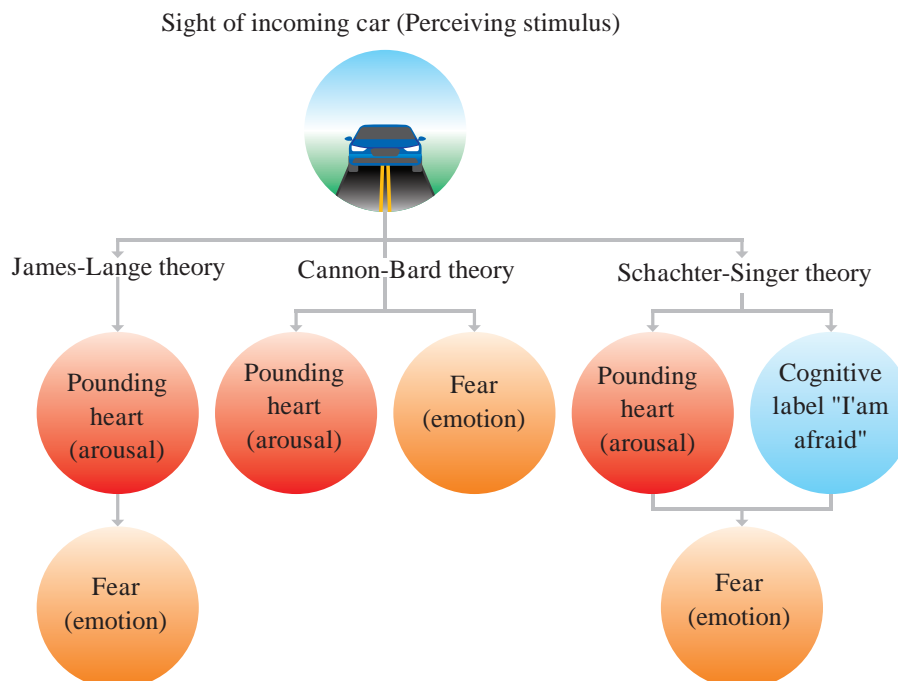


Diagram no.1 Theories of emotions

### Activity 2

#### THINK AND REFLECT

1. Do you start feeling better when you enter in the college and your friend welcomes you with a big smile?
2. Have you experienced that when you are happy, the entire world seems to be joyful and colourful?
3. Have you ever experienced that you are feeling sad and suddenly your friend cracks a joke and makes you smile, you start feeling positive once again.

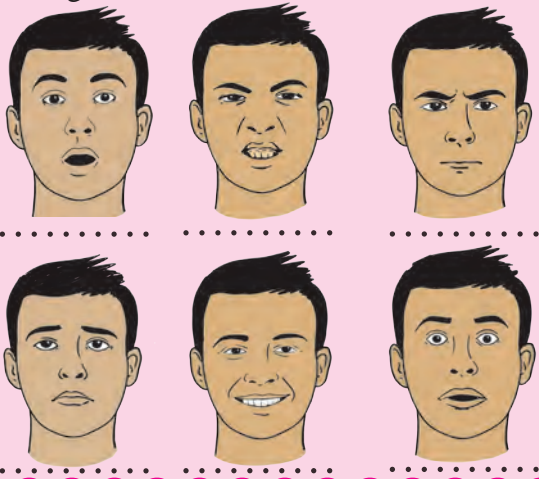
All these phenomena can be explained with the help of **facial feedback hypothesis**. According to this hypothesis, our facial expressions provide feedback to our brain concerning our emotions. In other words, facial expressions are not only the results of our emotions but are also capable of influencing our emotions. So smiling more frequently over a period of time can in fact, make you happier.

#### 5.2 Basic emotions-

Life is not about being rich, being popular or being the best looking, it is about being real, being genuine and true to who you are.

### Activity 3

Observe each figure carefully and write the emotion that corresponds to each in the blank spaces provided below. Can you identify which among these is a positive and negative emotion?



There are two primary emotions. Happiness and Sadness. As our experiences change the emotions transform to various levels giving it different names eg happiness can also be transformed to joy, sadness can transform to grief or shame. We experience various emotions in different situations. At times our emotions are so intense that we are ruled by our emotions. Our perceptions, decisions and actions are influenced by our emotions at that time. Some emotions occur for a brief period of time like exploding in anger whereas some emotions are long lasting like love. Some emotions are important from the perspective of our survival like fear whereas some emotions are important for our psychological well-being. Emotions can be socially appropriate or inappropriate or sometimes even socially obligatory. Eg. At a funeral we are expected to show sadness. Basic emotions serve as a base for the more complex emotions which results from the combination of basic emotions.

Researchers have differences in opinion regarding the number of basic emotions but there is acceptance of the view given by Paul Ekman. He has suggested six basic types of emotions.

### Activity 4

Check whether you can name the emotions accurately from the following examples-

1. It's Riya's 18th birthday today and her friends have given her a surprise party.
2. Rohan recently had a break up with his long time girlfriend with whom he was in love deeply.
3. Sameer had a disagreement with his best friend over where to go for a picnic and the situation got heated up.
4. Sumi has come to know that she has failed in her exam and she is figuring out how she will convey this to her parents.
5. Ashmeet suddenly saw his school best friend across the street after many years.

6. Amy opened today's newspaper and read the news of a 5 year old getting gang raped.

You must have identified the emotions in the above examples. Let's understand them more one by one.

- 1) **Happiness** – In the example of Riya, she will experience happiness as her friends are giving her a surprise birthday party. Happiness is the most positive emotion which we all experience and it's also associated with satisfaction, contentment and joy. It is closely associated with our psychological well being, health and longevity.
- 2) **Sadness** – In the case of Rohan, he will experience sadness after the break up. Sadness is characterized by some other related feelings like disappointment, grief and hopelessness. As we experience happiness, we also experience sadness from time to time. Even though it's very normal and natural to be sad at times, prolonged sadness can turn into depression. Of course there are some coping strategies to deal with our sadness which will make us more emotionally stable.
- 3) **Anger** – Sameer will experience anger due to the disagreement with his friend. Anger is a very powerful emotion which includes hostility, agitation and frustration. Anger is often displayed through facial expressions, body language, tone of voice and aggressive behavior. Anger is a two sided sword which can be good as well bad.
- 4) **Fear** – Sumi will experience fear as she will be scared to tell her parents that she has failed in her exam. Fear is a powerful emotion which is closely related to our survival from the evolutionary point of view. Fear is also associated with fight or flight response because fear could indicate a threat.

- 5) **Surprise** – Ashmeet will be surprised after seeing his school best friend suddenly across the street. Surprise is associated with a physiological state of response after some unexpected event. Surprise can be positive as in the case of Ashmeet, but it can be negative or neutral also. Eg. When your teacher announces a surprise test in the class, that can be an unpleasant surprise for most of you !! Surprise can sometime increase your adrenaline which will further prepare your body for fight or flight response.
- 6) **Disgust** – Amy is going to experience disgust as she reads the news of a gang rape. Evolutionarily disgust evolved as a reaction to foods that might be harmful or fatal. So generally disgust is more common reaction given to the taste or smell that has gone bad. But some other unwanted situations may also give rise to disgust. People may also experience moral disgust as in the case of Amy when they observe others engaging into immoral behaviours. But human emotions are not so simple and sometimes we experience mixture of emotions which are complex to understand.

### Do you know?

**Higher cognitive emotions** - following are some of the emotions which are like basic emotions and universal but the expression of these emotions vary across different cultures.

- |             |                  |
|-------------|------------------|
| 1. Love     | 2. Guilt         |
| 3. Shame    | 4. Embarrassment |
| 5. Pride    | 6. Envy          |
| 7. Jealousy |                  |

### 5.2.1 Plutchik's Model

According to Plutchik, emotions have evolved over a period of time for increasing our chance of survival. In his model he stated that there are eight basic emotions : joy, trust, fear,

surprise, sadness, anticipation, anger and disgust. Each primary emotion also has its polar opposite. Eg. Joy is the opposite of sadness and fear is the opposite of anger.

Plutchik created the wheel of emotions which depicts the various relationships among the emotions. The intensity of emotion decreases as we move outward and increases as we move towards the center. The color indicates the intensity. The darker the shade, the more intense the emotion. Eg. Anger when its least intense, it is called annoyance and when it reaches at its highest level of intensity, it becomes rage. Emotions with no color depicts combination of two primary emotions. Eg. Joy and trust combine to be love. Plutchik states that emotions are often complex and we experience complex emotions most of the time.

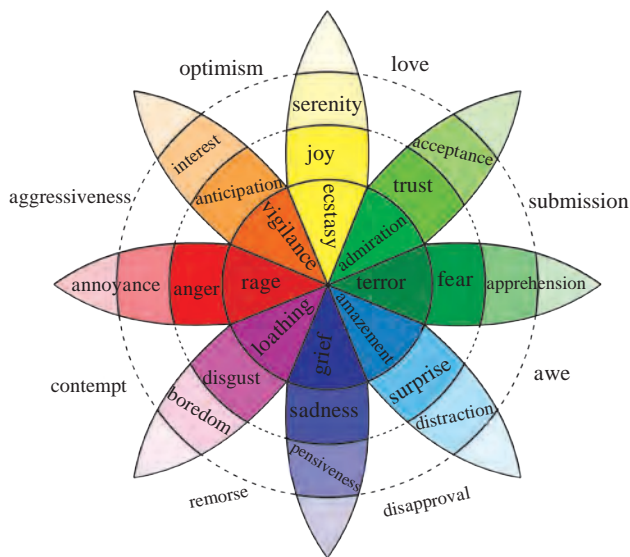


Diagram no.2 Plutchik's model of emotions

Plutchik's model is important from the perspective of emotional literacy that is not only having words for emotions but understanding how different emotions are related to one another and how they tend to change over a period of time. So we need to keep a watch on our emotions, name them appropriately and address them in a healthy way to avoid triggering them in the future. The emotions which are not addressed in a healthy way can be a cause of

psychological problems. It may also lead to unhealthy behavioural patterns in future causing an imbalance in other aspects of a person's life.

### 5.3 Physiological Changes during Emotions

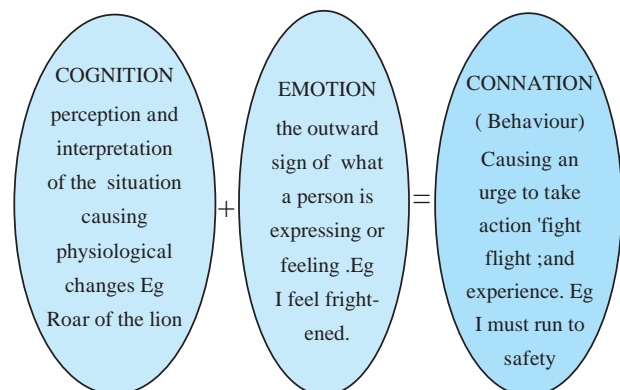
#### Activity 5

#### THINK, REFLECT, ANALYSE AND DISCUSS

State what will you feel and how will /did you behave in the given following situations:-

1. You are crossing the road and suddenly find a car breaking the signal and speeding up towards you.
2. You reach home and find the table laid with your favourite dish cooked by your mother.
3. You receive a phone call telling you that your best friend is undergoing an operation and needs blood.
4. Recall an incident in your childhood when you were insulted by an adult.

Emotion is derived from the Latin word 'Emovere which means to stir up or move. According to David G 'Human emotion involves physiological arousal, expressive behaviour and a conscious experience'. The correlation is depicted in the figure given below.

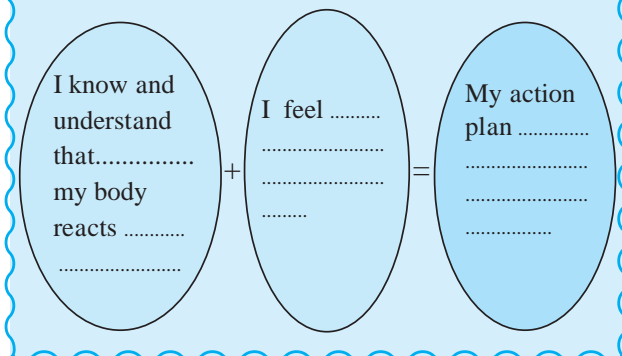


Let's see how this work:

### Activity 6

#### THINK, ANALYSE AND ACT

You see a snake ...with reference to the above given components fill the process with your interpretations feelings and actions.



Physiological changes refer to automatic reactions that take place in the body due to response to the stimulus. If you analyse the above situation .What happened when you saw a snake? The brain at the **Cognitive level** perceived the stimulus as dangerous, based on the knowledge that this animal is poisonous and a threat to life. This arouses physiological changes in the form of dilated pupil, faster heart beats, increased pulse rate, sweating, screaming or yelling or crying. At the **Emotional level** you experience fear. The Autonomic nervous system and Glandular system signalled the pituitary gland which activated the adrenal gland to secrete the cortisol hormone that triggers either a fight or a flight the **Connation level** action plan ( running away, calling for help or rushing to get an object to capture the animal).

Let us take a basic strong emotion of joy and happiness. Recall your most joyous moment like your birthday. The stimulus is highly positive so the body releases dopamine and serotonin hormones. Both these chemicals are heavily associated with happiness (low serotonin is closely linked with severe case of clinical depression). You smile more, faces flushes or

heart races, tingling sensation in the stomach elevating your mood and reducing your stress.

Strong basic emotions like Happiness, Sadness, Fear, Anger etc. are directly linked to the arousal of Physiological changes which occur during emotions especially internal and external. Read the illustration given below for more details.

Internal  
-The Brain,  
CNS, ANS,  
glandular  
system-  
adrenal  
gland,  
limbic  
system-  
amygdala

- \* Increase in the heart rate and heart beats,blood pressure and body temperature
- \* Decrease in secretion of saliva and dryness of the mouth
- \* Increase in pulse rate / respiration rate and expansion of chest
- \* Decrease in GI tract functioning

External  
- The  
Visceral  
and  
Muscular  
system

- \* Change in the voice - volume and tone
- \* Facial expressions/body language- stiffness in muscles
- \* Sweating -forehead palms,feet, wrinkles on the forehead.
- \* Lip and jaw alignment, redness and dilated pupils
- \* Erection of hair on the skin and skin temperature changes

### Activity 7

#### DO, OBSERVE AND DISCUSS

Stand in front of the mirror and looking at your face make the following facial expressions

1. Anger
2. Disgust
3. Fear
4. Happiness
5. Sadness
6. Surprise

What kind of changes do you notice in your facial muscles, rate of heart beat,respiration, skin temperature etc. Share this with your co-partner and write down your observations.

So, now that you are aware of what an impact a positive or a negative emotion can have on your body. Now you can very well become more conscious of how you express your emotions and deal with them in a healthy manner. Researchers have proven that practicing gratitude, mindfulness, altruism, kindness, empathy, compassion and forgiveness are all highly effective ways of balancing your emotions and dealing with the stressful challenges one faces in day to day life.

## 5.4 Emotional Well-being

Anjali knew her 12<sup>th</sup> prelims were going to start in two weeks. She had been studying hard, but she felt like she wasn't prepared. She started avoiding going out so that she could study. When she would take out her books to read, she couldn't concentrate; she kept thinking, "This is so hard, I am going to fail", "My parents will be so disappointed with me". Anjali would keep reading the same page over and over again without understanding what she has read, and then feel guilty about the amount of time she had wasted on one chapter. As the prelim exam got close, she got more anxious about her exam, and two days before her paper she got a high fever. Anjali was determined to give her exams; she did with her high fever. Unfortunately for her she didn't get the marks she had hoped for and was disappointed.

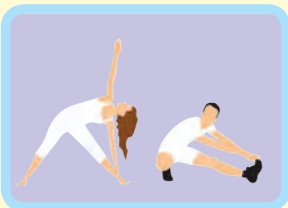
Do you think there is anything that Anjali could have done differently here? In this case study, it is easy to think that the poor outcome was a result of the physical illness, the fever.

But do you think, there could be other factors that were also playing a role here? Anjali lost focus in her studies due to high anxiety, which negatively affected her immune system and caused her to fall sick.

While physical well-being is observable to the common eye, emotional well-being is innate and not easily observable. It can be measured on the basis of how a person rationally handles the situation in a calm and healthy manner. Emotional wellbeing is gaining importance in today's fast paced lives that we lead. There are several external stressors eg: peer pressure, exam pressures, family expectations etc. that can have an impact on us. As humans, we will always experience negative emotions while coping with such stressors. We need to ensure, that we can manage these negative emotions so that they don't prevent us from leading a good life. Emotional well-being means managing our emotions, both positive and negative ones, so that we can lead a healthy and productive life. Thus understanding and managing one's emotions, encouraging positive emotions and not getting overwhelmed by the situation negative emotions is also an aspect of emotional well-being.

### 5.4.1 How do we achieve emotional well-being?

Lots of research has been conducted to try and answer this question, some of the ways it can be achieved will be discussed here. The reason for this is that there is no one formula for emotional well-being; instead there are a lot of techniques that have been found to be helpful in regulating our emotions at the A) PHYSICAL B) EMOTIONAL C) SOCIAL. Some of them are mentioned ahead.



#### A) PHYSICAL

- Exercising releases endorphins, a chemical that makes us feel good and also acts as an essential stress buster to negative thought cycle accompanying negative emotions eg sad, guilt, anxiety.
- Eating a well balanced healthy diet to provide adequate nutrition and avoid health issues.



### B) EMOTIONAL

- Managing stress by raising levels of motivation, engaging in meaningful activities and hobbies and connecting with optimistic people that help you develop.
- Practising mindfulness and staying connected with the present rather than ruminate on the past thus raising our emotional health.



### C) SOCIAL

- Building meaningful relationships with others, provides us with emotional support and boosts our morale.
- Volunteering and engaging in prosocial acts develops our self esteem, confidence level, reduces depression and develop feeling of gratitude.

## 5.4.2 Benefits of Emotional Well Being

An individual who is high on emotional well being will experience the following benefits:

1. <i>Coping with stress</i>	<ul style="list-style-type: none"> <li>• They are better able to deal with stress.</li> <li>• They use healthy methods- like talking to friends, exercise, etc. to cope.</li> </ul>
2. <i>Better Self Regulation</i>	<ul style="list-style-type: none"> <li>• They are able to deal with emotions such as anxiety, anger, and fear without allowing the emotions to overpower them.</li> <li>• They can label how they feel and accept these negative emotions as being a normal part of life.</li> </ul>
3. <i>Increases productivity</i>	<ul style="list-style-type: none"> <li>• Feeling positive makes them feel energised, which helps in the performance of various tasks like studying, playing etc.</li> <li>• The ability to focus and think clearly is also enhanced in emotionally healthy people.</li> </ul>
4. <i>Increased creativity</i>	<ul style="list-style-type: none"> <li>• They are open to new experiences and curious in life.</li> <li>• They can think of different strategies to solve a problem when one fails.</li> </ul>
5. <i>Life Satisfaction</i>	<ul style="list-style-type: none"> <li>• They are able to build relationships and have deep personal connections.</li> <li>• They perform activities like volunteering in social service or philanthropic activities which helps give purpose and meaning to their life.</li> </ul>

## 5.5 Emotional Abuse

### Activity 8

1. Have you ever been caught in a situation where none of your friends were talking to you and you felt so helpless?
2. Have you ever seen somebody getting bullied in front of you? Can you understand what the person must have felt that time?
3. Has it ever happened to you that you have started conversation with one group and they pretended that they just can't hear you?

If the answer for above questions is YES then it depicts emotional abuse.

We are more familiar with physical abuse which makes use of aggressive techniques like hitting, kicking, pushing or other physical forms of harm to control the other person. The other form of passive abuse is emotional abuse. Emotion is used as a weapon of choice to control the other person. So the examples we have seen above are not using any physical form of abuse but they can be termed as emotional abuse.

Emotional abuse is one of the hardest forms of abuse to recognize. It can be subtle or overt. In both ways it hampers the self esteem and confidence of the victim as he/she is wounded emotionally. Emotional abuse is more harmful and damaging to the self esteem and self- worth of a person. It can leave the person feeling depressed, anxious and even suicidal. The scars of emotional abuse are much severe and consuming and take more time to heal than physical abuse. The excessive and callous use of the harmful behaviour depict lack of control and intentional hurt leading to emotional abuse.

### Types of Emotional Abuse

**Verbal violence** - yelling, insulting, and swearing. It will also include lecturing, ordering and unpredictable outburst Labelling, publicly embarrassing and blaming causing fear, threatening

**Non Verbal** - Rejection – pretending not to notice and ignoring conversation, isolation, bullying, digital spying

Check if you are prone to get emotionally abused.

- You prioritize others needs before yours
- You always try to please others.
- Sacrifice for others but they don't reciprocate.

- Repress your feelings because other should not feel bad.
- You feel guilty for standing up for yourself.
- You think that you deserve this treatment.
- You believe that nobody would want to be with you.

### HOW TO DEAL WITH EMOTIONAL ABUSE

When you fail to confront mistreatment you become an accomplice to your own emotional abuse. If you are experiencing emotional abuse, it's important that you seek help. **Besides that there are some simple steps which you can take to deal with emotional abuse.**

1. Accept that abuse is not your responsibility. Don't justify the person who is abusing you. The problem lies with them and not with YOU!!!
2. Disengage and set personal boundaries.
3. Decide that you will respond to the abuser assertively and try to seek distance from such people.
4. Don't give immediate reaction to the abuser.
5. Give yourself time to heal.
6. Seek professional help and guidance. Talk to your friends or teachers or family members who will support you. You can also seek professional help from your school or college counsellor.
7. Practicing self care like going for a walk, eating the right food or listening to music reduces the symptoms of anxiety. Prioritizing your self-care could be crucial for overcoming emotional abuse.

The most important point to deal with emotional abuse is breaking the silence and standing up for our own self.

### 5.6 Managing Emotions

Manan and Manasi are twins yet very different from each other. Manan is always anxious and the smallest problem will send him in a state of frustration. When he is stressed he

gets agitated and shouts. Small events in the environment affect him such as the pollution, the traffic jam, the long queues, the power cut, the unclean pavements, his friends gossiping, his teacher's behaviour. His moods and happiness are directly influenced by what is happening around him and he always appears sad or nervous about something or the other. On the other hand Manasi is very calm and composed. She doesn't let the disturbance and chaos get to her. She appears to be more in control of her feelings. Thus she tends to be a lot happier and content compared to her sibling Manan.

What is the difference? Manan is struggling to manage his emotions while Manasi has mastered the skill of managing her emotions. The major difference being INDIVIDUAL'S CHOICE. Managing your emotions is very much a question of choice. Everywhere you look, you will find many people around you struggling to handle their emotions. You will observe many are in a state of denial and hesitate to acknowledge their emotions openly. Some do not understand their own emotions clearly there are few who are self aware i.e. know themselves well and are able to express their emotions in a healthy manner. Have you ever thought as to why people find this aspect of their life difficult to control? Here is where Managing of Emotions comes into our life as an important life skill.

Managing Emotions can be defined as 'The ability to be open to feelings and modulate them in oneself and others so as to promote personal understanding and growth'. The limbic system, the emotional section is the oldest part of the brain. It developed before the prefrontal cortex which is 'The Thinking part', hence making it the extremely strong part of the brain.

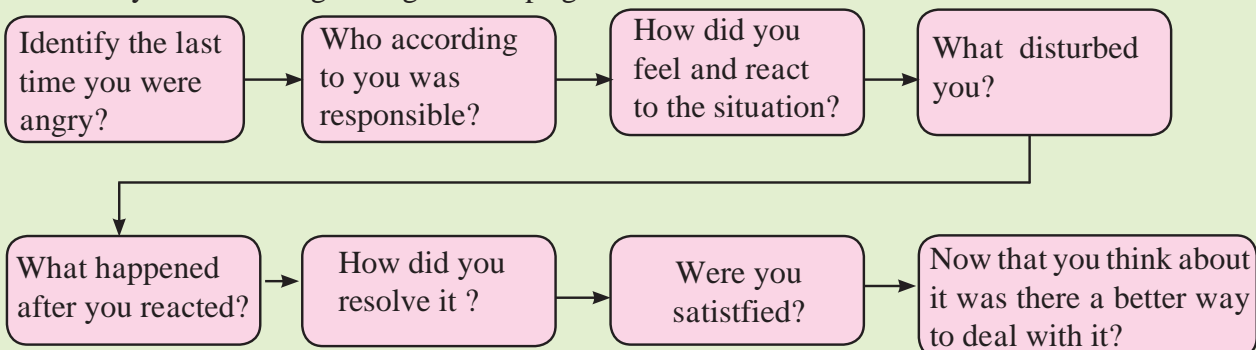
This is the reason why many a times our emotions hijack our thinking. In such times we tend to act impulsively, compelling us to take wrong decisions that cause major downfall or failures in different aspect of our life eg: choosing friends, career, relationships etc

Recollect the concept of Emotional Intelligence in std XI Textbook of Psychology chapter 2 and its major components. Emotional Intelligence involves the ability to understand and manage one's emotions. It is linked to everything from academic achievement to major decision making skills in life.

Managing emotions is an art as well as a science. An art, as it's a form of expression. Our feelings make our life beautiful and helps us stay grounded as humans and to all around us. However, it is also a skill that needs to be learnt, giving it a structured scientific approach. It needs to be acquired with practice to maintain a balance and harmony between the mind and the body. We have taken an important emotion 'Anger' and dealt with how to manage it through the structured approach of Anger Management.

### Activity 9

Look at the diagram given below. Can you identify the last time you were angry? Introspect and analyze this feeling through the steps given below.



### 5.6.1 Anger Management

“Holding on to anger is like grasping a hot coal with the intent of throwing it at someone else; you are the one who gets burned.” - Buddha

#### What is Anger?

Anger is a primary natural emotion expressing dislike or displeasure. Though many a times unwanted or irrational, it is a very common emotion that everybody experiences in their life from time to time. It is a very common way of releasing a negative feeling arising towards a person or a situation, event or thing. You experience anger when someone or something annoys you or disappoints you. It could be someone, you think has done wrong to you or a situation that has occurred beyond your control or awareness, or you have been a victim to. To a lay person anger is considered to be an all-round negative emotion but this is not so. It is a protective emotion that helps people defend themselves from physical and psychological threats.

#### Activity 10

##### Reflect, Think and Discuss

1. Have you seen two adults fighting and physically abusing each other on the road? What could have led to such strong reactions from them?
2. Recall your student years in school, do you remember the first fight or argument you had with a classmate?
3. Recall your high school years as a student when you were reprimanded by your teacher or your parent or an adult in the family.

#### How does Anger happen? How does your Brain work?

Have you ever wondered how the neurological forces act on your brain during the process of anger? If we need to learn how to

manage Anger let us see how this happens in our brain.

In Std XI Chapter 7 Nervous System you have studied the nervous system. You have studied the different parts of the brain. The Cerebral Cortex (the outer portion of the brain) is the Thinking Centre of the brain. It is a part of the forebrain logical reasoning and judgement function.

The Emotional center of the brain is the Limbic system. It is located in the lower section of the brain and more primitive than the cortex. Hence when a person is experiencing and expressing anger, he or she is not using the cortex (thinking section) but primarily functioning from the limbic system. In the limbic system, a small structure called Amygdala which is a storehouse of emotional memories plays an important role in the emotional outbursts. The data coming in from the world around us passes through the amygdala where the decision is made whether to send the data to the limbic or cortex area of the brain. If the incoming data triggers enough of an emotional charge, the amygdala can override the cortex, which means the data will be sent to the limbic system causing the person to react using the lower part of the brain. During an overriding event, the amygdala goes into action without much regard for the consequences (since this area of the brain is not involved in judging, thinking, or evaluating). Eg. You are waiting patiently in the queue at the bank, a person comes and cuts the line and moves ahead of you, you scream at them and ask them to go back. On an average, it can take 20 minutes for a person who has experienced an angry state of arousal to calm, to move from functioning from the emotional area to the thinking area of the brain. Hence if you recollect when you got angry as a small child your teacher or parent asked you to count from 1 to 50 or 100 numbers.

## Triggers of Anger – ‘Do I know what makes me angry?’

Now that we understand how anger happens in the brain, we face the next challenge as to what causes us to get angry. Often called Triggers of Anger -it is any event that signals the brain to activate the body’s anger system. Once the trigger is activated, the angry feelings begin automatically. These triggers of anger will vary from person to person based on the individual life experiences. Eg: if you have been bullied or shamed in school as a student you will have strong resentment towards someone or situations, in relationships etc. that are controlling or threatening. Here are common triggers of anger:-

<b>VERBAL</b>	Subject to abusive language causing feeling of being disrespected or devalued, feeling of being criticized or scolded, insulted, deceived or lied to, labeling, shaming, blaming.
<b>NON VERBAL</b>	Mostly through gestures and facial expressions-Feeling of being disregarded, neglected, ignored, frequently spurned or rejected, frown, show a smirk on the face, give a wierd look, feeling unloved and unappreciated, dissapointed.
<b>PHYSICAL</b>	Basically actions causing physical harm or physical threats -Violation of your personal space through physical attack, slapping, screaming shouting, kicking, shoving, grabbing by the neck. Sexual assault rape, feeling out of control, weak, inadequate and incompetent.

### Activity 11

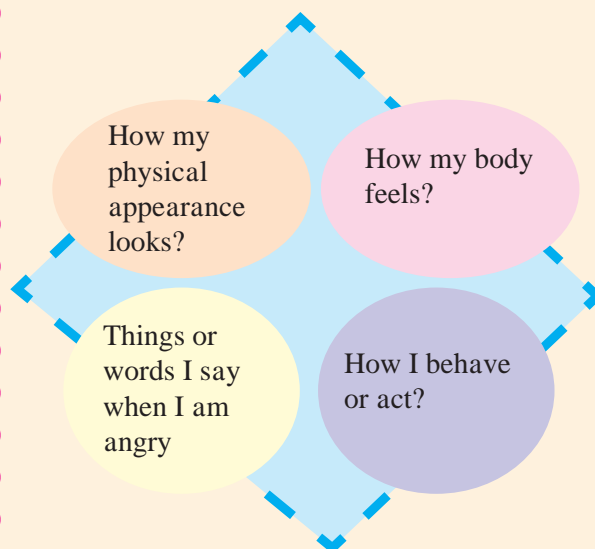
Can you identify from your immediate family members, peer group and elders or superiors that you meet who among them gets a) angry faster b) who are slow to get angry and 3) who rarely get angry. List atleast 2 names in each category and recall a trigger causing their anger.

### Activity 12

#### KNOW, FEEL AND GROW

Knowingly or unknowingly as humans, we all succumb to situations and get Angry. Depending on the level of self-awareness the frequency of anger outburst will vary from person to person.

Here is a process to identify with yourself as you experience this strong emotion. Reflect and apply this grid to how your body reacts in an angry situation.



If you have discussed your experiences in activity 11 and completed activity 10 and 13, you will understand that Anger is expressed emotionally (feeling), cognitively (thinking), physically (bodily changes) and behaviourally (through actions). Even though there may be different reasons to be angry, overall there are three factors involved.

A Trigger-Causes of anger

The Individual's personality and character traits

Particular interpretation of the event - person or situation

**You can anticipate and manage your anger  
'When awareness is brought to your emotions,  
power and direction is brought to your life'**

When a person understands the underlying reasons for the anger they are able to anticipate potential anger episodes and deal with it more appropriately. When we understand our triggers, we are able to manage our anger (keep the process in the cortex instead of the limbic system), and provide an intentional response, hopefully than reacting and pushing the situation to a disastrous end. If we are attuned and aware of our triggers, we are better able to predict our own response and make choices not to respond in an angry manner. This means that we will be:

1. More observant and aware of what is going on to trigger us, and
2. Take measures to talk ourselves into a more acceptable response that will allow us to be in control of how we are responding to the situation by avoiding intentionally an uncalled for reaction.

**Manage your ...**

**A.nnoyed**

**N.egative**

**G.rumpy**

**E.xasperated**

**R.ageful**

**...don't let your annoyance grow !**

Being more in charge of your reaction to anger comes from the self-control you maintain in understanding what happens in your brain, and in knowing and understanding your triggers. Your thoughts and emotions are controlled by your cortex enabling you to strategise and get less emotionally charged. **As the experience of**

**anger is subjective, it can be controlled too.**

Anger can be a powerful ally. As one of the most cathartic emotion, it can be an effective cleanser of the emotional system. However when it becomes a habit, it loses its power to transform and becomes an obstacle. So an intervention program called Anger Management is a must to avoid it becoming a habit. Rather than the majority of people who prefer to blame people or situations for their anger, anger management will create the awareness and willingness to take responsibility for your emotions. It has been described as deploying anger successfully to your advantage rather than creating chaos in your life.

**Effective Anger Management** begins with you. Controlling anger involves two perspectives:

- a. Managing your own anger
- b. Learning how to respond effectively to the anger in others.

**Activity 13**

**Think, Reflect, Discuss and Share**

Can you imagine driving a car without controlling the steering wheel? What would happen? It's obvious you will crash and meet with an accident. So now imagine your life as the car and the steering as your anger? How will you feel in this situation?

**Take responsibility for your Anger:**

Taking responsibility for your feelings makes you the driver rather than a puppet on a string. And thus you start functioning from your internal locus of control. So you exercise the choice of freedom to control your life. You have the opportunity to evaluate, regulate and control your anger and use your innate ability to think rationally and make the correct decisions. Let's look at the different approaches to Anger Management.

### The 3 R's : Relax, Reassess and Respond

1. **Relaxation and Connection with the inner self**:-directly enhances clear thinking, attention and concentration .When you are angry you are in a vulnerable state so you reach to conclusions and decisions in a storm. Engaging in power booster activities like meditation techniques, listening to music, engaging in hobbies, social work etc. puts your body deliberately in a calm, stable state and gives you recovery time to manage your anger. You can see things in clear perspective. This stage prepares you to respond rather than react impulsively.
2. **Reassess**:- Now that the mind is relaxed you can revisit the situation objectively and figure out exactly what is happening? how is it affecting you? whether an action needs to be taken and what action should it be?

#### Feelings Thermometer



- **Take complete responsibility for your emotion** rather than blaming someone else for it. This empowers you to acknowledge your emotions and behaviour. You are not accepting responsibility for the other person's choices and feelings nor surrendering or defending yourself nor admitting it is your fault. You are merely paying attention and shifting the focus on your needs that were not satisfied in a given situation. Eg: Your best friend lied to you. In this situation you feel disrespected, hurt and disappointed without being judgmental of what is good or bad. Now that you are aware of it you will be able to control how you will behave and respond to that friend in a rational manner.

#### Activity 14

You can prepare the Feelings Thermometer for yourself as a book mark and keep it with you for all times . You may keep referring to this when under stress or you confront uncomfortable situations arousing any negative emotions that could lead to anger

- **Developing empathy** for the person that wronged you can also help you slow down the anger ,as you understand that your adversary is also struggling with difficult emotions like you. When you reach this stage of reassessment you would have calmed down still in your anger meter.
- **Using compassion** – each one is going through their own battle of emotions. Understanding that they are also humans and are capable of making mistakes empowers you to deal with your anger in a better way. Eg you might choose to break your friendship with this friend who lied to you and that may be perfectly sensible to you. You need to decide for yourself which kind of behavior you are willing to tolerate

or not tolerate. Set certain boundaries and let go.

- **Conduct a Reality check:-** You will be in a better position to monitor your anger if you conduct a reality check of the situation you are facing. Take a 360 ° view of the situation and look clearly at what happened. You need to step away from your initial judgments and gather more evidence before setting upon a course of action or taking a decision. Some key questions to ask yourself  
E g :

1. How important is the friend to you now that you have faced a situation involving him or her?
2. Is your anger justified given the facts what happened? Would an average person get angry, faced with the same situation?
3. Why did your best friend lie to you. What were the compelling circumstances? Did you have any role to play in it?
4. Is the situation modifiable or something you can do to change it for the better
5. Is it worth your time and effort?

3. **Respond:-** Use your anger as a motivation to change. Anger is telling you something. This is the time when you re-engage with the other party or situation to resolve the conflict.

- a) **Consult** a trusted family member, elder sibling or another friend on their views or suggestions on this situation can be of some help as you get another perspective to handle the situation.

- b) **Engage talks with the other party :-** This approach requires a lot of mindfulness. You need to be calm, polite, respectful at all times, maintaining good facial gestures of course having the willingness for a meeting to talk about the incident that caused the anger.
- c) **Active listening :-** Before you articulate your needs, concerns and perspectives you must give the person a platform to express their point of view . Being an active listener helps you communicate and resolve the problem more effectively.
- d) **Speak assertively :-** you stand up for your feelings and emotions while exhibiting the same for the other person .This is precisely the right kind of approach and attitude to adopt as it is a positive communication style, practical and derives meaningful and satisfactory results for both.
- e) **Cage your Rage :-** Guard yourself against escalation of your own anger .When you are angry the desire to hurt the other person is very strong. Instead of provoking the other person's anger, work towards moderating your own and let the other speak up until they calm down. It is important to establish clear boundaries on how you want to be treated by the other person.

**Anger managment** is a skill which has to be acquired through practice, so logging how you went about managing this emotion will give you a sense of pride and accomplishment. It will empower you to raise and upgrade your social skills, manage conflicting situations and achieve your goals and fulfill your dreams and aspirations in life.

## Summary

- Emotions are an essential part of our life and add meaning to our existence. They play an important role in how we think and behave. The emotions we feel in our day to day life influence our habits, attitudes and compel us to take action and even influence our decisions, both small and major ones.
- Hence Understanding and Managing one's emotions in other words developing Emotional Intelligence is an important life skill which all humans must learn and master to make their own lives purposeful, meaningful and enriching.
- Basic Emotions nurture our thought processes and help us grow, survive and face challenges in life. The ability to manage emotions effectively is a pivotal part of emotional intelligence. Regulating emotions, responding appropriately,

and responding to the emotions of others are all important aspects of managing emotions.

- Emotional abuse is more damaging than physical abuse. It can destroy the person's self-esteem and they begin to doubt their own perception and reality. Hence recognizing, awareness and finding ways to come out of it is essential.
- Practicing strategies of Emotional well-being many a times causes us to choose activities that give us a sense of happiness, satisfaction and contentment and avoid those activities that cause boredom, frustration, sadness and anxiety.
- Anger is a powerful catalyst among emotions either spurring a good or a bad response. Understanding the major triggers and proper practice of anger management techniques can enable the individual to be instrumental in their own personal growth.

## Important Concepts

- Emotion
- ANS (Autonomic Nervous System)
- CNS (Central Nervous System)
- Parasympathetic and Sympathetic

### Nervous System

- Emotional Abuse
- Emotional Well Being
- Anger

## Important Psychologists

- **William James :** William James was an American philosopher and psychologist. His major contribution to psychology was the evolutionary theory on Functionalism, which

established a causal relationship between internal state and external behavior. He is also referred to as the 'Father of American Psychology'

## Important Psychologists

- **Carl Lange** : Carl Georg Lange was a Danish Physician who made significant contributions to the Field of neurology, psychiatry and psychology. His major contribution was the theory of emotions which signified that emotions are influenced by physiological reactions to stimuli. Later on his theory was paired with William James and their theory came to be known as James Lange Theory.
- **Walter B Cannon** : Walter Bradford Cannon was an American Physiologist. He developed the term Fight or flight response
- **Philip Bard** : Philip Bard was a graduate student of Walter B Cannon. In 1927, they together developed the theory of emotion referred to as Thalamic theory. According to this theory stimulating events triggers emotional response and physiological reactions simultaneously. Together it came to be known as the Cannon-Bard theory of emotion.
- **Stanley Schachter** : Stanley Schachter an American Social Psychologists renowned for his two factor theory of emotion with Jerome Singer and his extensive research in interactions of social and physiological. Determinants of behaviour. The two factor theory of emotion proposed that emotional arousal is a result of both physiological and cognitive responses.
- **Paul Ekman** : He was an American psychologist who did extensive research on human emotions. His work showed that there are six basic human emotions that are seen in all cultures.
- **Robert Plutchik** : He was an American psychologist who theorised eight primary emotions and created the wheel of emotions. The wheel of emotions depicts the relation between the eight emotions and their polar opposite emotions.

## Exercises

### Q.1. Complete the following Statements:

1. \_\_\_\_\_ is a combination of bodily arousal, expressive behaviour, thoughts and feelings.  
a. Response                      b. Reaction  
c. Emotions
2. According to James Lange we first experience \_\_\_\_\_ then emotions.  
a. physical arousal      b. feelings  
c. thoughts
3. Emotion is used as a \_\_\_\_\_ to control others.  
a. weapon                      b. measure  
c. opportunity
4. When you allow another person to exploit you, you are a victim of \_\_\_\_\_ abuse.  
a. physical                      b. emotional  
c. social
5. Exercising releases \_\_\_\_\_ which makes you feel good as a stress buster.  
a. endorphins                      b. thyroxin  
c. insulin

**Q.2. Identify the odd items from the following and write a suitable reason for your choice:**

1. admiration, disgust, acceptance, trust
2. kicking, ignoring, shoving, screaming
3. Reassess, React, Respond, Relax
4. meditation, social work, compassion, engage in hobbies

**Q.3. Match the Pairs:**

**A**

**B**

- |                               |                     |
|-------------------------------|---------------------|
| 1. Happiness                  | a. Basic Emotion    |
| 2. Paul Ekman                 | b. fight and flight |
| 3. Anger                      | c. surprise         |
| 4. Fear                       | d. sadness          |
| 5. Grief                      | e. triggers         |
| 6. Anger management technique | f. powerful emotion |

**Q.4. State whether the following statements are true or false :**

1. Emotional well being is not easily observable.
2. Positive emotions energise you.
3. You should feel guilty for standing up for yourself.
4. Anger is a basic negative emotion.

**Q.5. Answer the following questions in around 35-40 words each :**

1. Explain the term facial feedback hypothesis.
2. When does an individual face social rejection?
3. With the help of an example write the non-verbal triggers of anger.
4. What are the aspects of emotional well being?

**Q.6. Compare and Contrast :**

- a. Happiness and Sadness
- b. James Lange theory and Cannon Bard's Theory

**Q.7. Write Short Notes on the following in 50 60 words:**

- a. Measures of dealing with Emotional

Abuse

- b. Plutchik's Model of Emotions
- c. Anger –A Powerful emotion
- d. Managing Emotions
- e. Benefits of Emotional Well being

**Q.8. Answer the following in 50-60 words:**

- a. Using the 3 R model of Anger Management present a case study of your own experience.
- b. How does the brain work when angry?
- c. After having realised you are emotionally abused by your best friend, write the steps you will take to deal with it.

**Q.9. Analyse the situations presented below and**

- a. Write the Emotion/s you experience.
- b. What will be your response to this situation ?

1. Anish was scolded by his boss. He came home and in a fit of rage hit his son. You are Anish's friend who witnessed this outburst.
2. You helped your friend with study notes during his illness. But when your friend got better he did not respond nor show any sense of appreciation.
3. Though you are a good friend of Anushka, she has not invited you to her new year's party.
4. It's your Birthday and you wake up that morning to find yourself surrounded with beautiful gifts.
5. You have had a hectic day at college when you come home you find the door locked. You forgot your keys at home that day and your parents have not informed you of their plans.
6. You have planned a surprise day out for your best friend and she tells you she is not interested and has other plans.



## 6. Psychological Disorders

### 6.1 Introduction

### 6.2 Nature of Psychological Disorders

### 6.3 Criteria for Psychological Disorders

### 6.4 Mental Wellness

### 6.5 Mental Disorders - Its classification

### 6.6 Major Psychological Disorders

#### 6.6.1 Anxiety Disorders

#### 6.6.2 Depressive Disorders

#### 6.6.3 Bipolar Disorders

#### 6.6.4 Trauma and Stress related Disorders

#### 6.6.5 Substance related and Addictive Disorders

#### 6.6.6 Schizophrenia

### 6.7 Identifying and treating Psychological Disorders

### Learning objectives

1. To understand and evaluate the nature of psychological disorders.
2. To summarize and compile the criteria for psychological disorders.
3. To illustrate an indepth understanding of the term mental wellness its various aspects and demonstrate the understanding of Mental Wellness on a Illness Wellness Continuum given by John Travis and interpret it in detail.
4. To classify the various Mental disorders and understand its symptoms as per the DSM-5.
5. To understand the various symptoms for indentifying and treating psychological disorders.

### 6.1 Introduction :

In XI Standard we have learnt about abnormal behaviour. We also tried to understand what are the criteria for the abnormality. To sum up what we have already learnt, the major criteria that we discussed were deviance, personal distress and impaired functioning. Now let us study the examples given below.

#### Activity 1

On the basis of your understanding of various criteria for abnormality, which of these

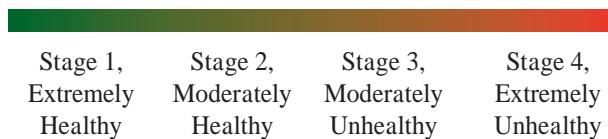
would you consider as normal or abnormal behavior?

- 1) Hemant wears the same lucky blue shirt for all his major competitive exams.
- 2) Seema is not able to fall asleep easily.
- 3) Rakesh throws pillows and pounding fists on the wall during arguments if he finds himself losing ground.
- 4) Reena always experiences fear but is not able to specify what is so scary.

Most of us will find it difficult to decide whether any of the above can be considered as normal or abnormal and find it difficult to classify on a clear cut basis. Why is it so? We will try to understand it in the next section.

## 6.2 Nature of Psychological Disorders:

We observed that distinguishing normal behaviour from abnormal is not very easy. This is because illness and absence of illness are not two different categories as we think. According to the Mental Health Continuum Model (Keyes, 2002) they are two opposite poles of the same continuum sequence in which two adjacent points are not clearly different from each other. An individual can be on any point at one particular time and we keep shifting our position on it as our situations improve or deteriorate. For convenience of better understanding let us mark on this continuum four stages. Let us study this with the help of following diagram.



**Diagram 1 - Mental Health Continuum Model**

**In Stage 1** : These individuals are positive and are functioning well. They show stable mood. They are calm, peaceful and satisfied with life. They feel motivated and energetic. They are physically as well as psychologically healthy. You might have experienced this during times when there is nothing to worry and you are overall contented. They are satisfied with their life.

**In Stage 2** : These individuals are neutral but reactive. They do feel nervous and worried at times and get affected by the stressors of life. Sometimes they may doubt themselves which will cause anxiety and this can affect their performance. They may feel tired soon and may lack energy. You might have experienced this

too, say, while facing the examination or at the time of interview. But in this stage if the individuals become more realistic and accept their limitations or constraints placed by the environment, they can manage to reduce the stress. At the same time following a healthy diet and a healthy life style, with adequate rest and by engaging in more social activities, it is possible to push themselves back more towards positive healthy functioning.

**In Stage 3** : When the individuals are at the point of Stage 3, they show signs of psychological damage and they are moderately ill. They may experience negative feelings like sadness, fear, inadequacy, restlessness or irritability. They may lack motivation to take up new challenges. Sometimes they feel overall apathy and feel tired even while completing their daily routine or work. Their relationships may get strained and they may even turn towards drug abuse or alcohol. Though they show clear signs of mental illness, they may still be productive and functioning properly, but may find it difficult to do it. But this point is also not irreversible. By consciously trying to find the realistic root cause of the stress and with the help of emotional support such individuals can fight with the moderate illness they are facing. They can get emotional support either from family and friends or at times they may need professional help.

**In Stage 4** : Individuals show clear signs of major psychological disorder. They show extreme distress and impairment in all three areas of functioning, i.e. mental, emotional and social. They need professional care and treatment.

## 6.3 Criteria for Psychological Disorders

An individual keeps shifting from one stage to another depending on his/her life circumstances. In such situations how do we decide whether a particular person is suffering from any psychological disorder or not. The

mental health professionals currently use diagnostic procedures to make such decision. For this purpose generally DSM and ICD criteria are currently used. According to the present DSM-5, there are five criteria for psychological disorders. Let us study them in detail.

- 1) **Clinically significant syndrome:** When we have some physical symptoms or complaints we know that we are ill. In the same way, in psychological disorders there should be certain patterns of important behavioural or psychological syndrome that occurs in an individual. There are certain symptoms that occur together in a particular disorder. These clusters of symptoms together is called a syndrome. Psychologists rely on these syndromes to diagnose the disorder. We will study about these syndromes in the section where we will examine few psychological disorders.
- 2) **Distress and Impairment:** There should be presence of distress and/or impairment. We have already learnt about distress as well as impairment in XI Standard. Distress is the psychological pain. The pain may arise due to negative feelings like sadness, fear, inadequacy, restlessness or irritability. It may also be due to stress. Impairment is inability or difficulty to perform appropriate duties and roles in personal, social and work related situations.
- 3) **Dysfunction:** If the symptoms lead to an underlying psychological, biological or developmental dysfunctions, then it leads to the diagnosis of mental disorder, e.g. inability to remember, inability to learn, inability to concentrate, etc.
- 4) **If any response given to stressors or losses are accepted as a response to that situation, it is not considered as a sign of mental disorder:** It should not be a response that is normally given to common

stressors and losses (like sadness experienced at the death of a loved one is not a sign of any mental disorder). Or it should not be a culturally sanctioned response to a particular event (e.g. trance state in certain religious rituals, should not be considered as sign of mental disorder).

- 5) **Any behaviour which is just deviant or conflicting with society but not producing dysfunction or distress or disability, then it does not become a sign of mental disorder:** Behaviour should not solely be a result of social or cultural deviance or conflicts with society or conflicts with political system. For example in certain societies and cultures homosexuality is considered as abnormal behaviour. But according to DSM 5 it is not considered as a sign of disorder.

In short Psychological disorder or mental illness is a condition or clinical syndrome which involves changes in **emotions, thinking and behaviour** or combination of these, such that it leads to distress, dysfunction and/or impairment. Before we study about various psychological disorders, let us study some important concepts and issues related to mental health.

#### 6.4 Mental Wellness:

Study two examples given below and decide who leads a better life than the other. Why do you feel so? Remember, in both these examples, the person described is not suffering from any psychological disorders.



### Activity 2

- 1) Karan an 18 year old student, got admission in one of the reputed engineering colleges. After few weeks he starts finding engineering uninteresting and difficult. He feels doing engineering is useless and a waste of time. He keeps himself out of the classes and spends most of his time wandering around the campus. He feels his life is a waste.
- 2) Pramila is an 18 year old, whose father died recently. She is eldest in the family. She and her mother are extremely worried about the financial crisis that they are soon going to face. So she took up a job during daytime and joined a night college. She feels extremely tired and tensed most of the time. She is hopeful that she will soon be able to change the situation. She dreams that one day she will establish an organization that will help all the needy students in the matters of financing their higher studies.

Now study two more examples. Both the examples are stories of psychologically ill individuals.

### Activity 3

Now decide who you find functioning better than the other in spite of illness. Why?

- 3) Santosh is a drug addict. He has realized that his habit of taking drugs has caused him a lot of damage, physically, psychologically, socially as well as financially. Now he is determined to put an end to his habit. He failed in many of his attempts. But he is convinced that with continuous treatment, he will be able to lead a normal healthy life again and will be able to fulfill the needs of the family.
- 4) Lalita's parents are always fighting. Her

father is an alcoholic and beats everyone in the family. She is extremely sad and is not able to focus on her studies. She has stopped interacting with anyone including her friends. She feels very lonely and feels that her life is of no use to anyone. She feels her future is dark and gloomy. When asked about what she wants to do in future, she says that she has no goals in life. She feels very tired and says she is fed up with life.

In the first two examples you can see that in spite of having many difficulties Pramila appears to be functioning better as compared to Karan who is well placed and has fewer problems. Similarly in later two examples, though both of them are suffering from psychological disorders, we find Santosh to be doing better than Lalita. This is because mental health or mental wellness does not necessarily mean absence of illness. Then what is mental wellness? On the basis of the above examples can you identify some markers of mental wellness? What are the main differences between Karan and Lalita on one side and Pramila and Santosh on the other side? Let us study what exactly is mental wellness or mental health.

World Health Organization (WHO) defines mental wellness as, **"a state of wellbeing in which the individual realizes his or her own abilities, can cope up with the normal stresses of life, can work productively and fruitfully, and is able to make contribution to his or her community."**

In example 2 we can see that in spite of all difficulties, Pramila does not succumb to unfavorable life circumstances. She is able to work hard and is striving to get out of the stressful situations. She is able to face difficult situations boldly, though she is experiencing psychological pain of the stress. She is able to

make use of all her abilities and is able to see herself as contributing to the society by having a dream of helping the needy students in the future.

In example 3, though Santosh is having psychological disorder, he is struggling through his illness. He is trying his best to develop himself as a normal person again who will be contributing fruitfully to the wellness of his family.

In contrast to this, in example 1, we find that Karan, in spite of having successfully gained admission in a reputed engineering college, is considering himself as well as his achievements as useless. He is not making the best of his abilities and sees no goals for his life.

Similarly, in example 4 we find Lalita succumbed to the adverse life situations and finds herself lonely. She finds her life aimless (without goals) and sees no future. She has no energy and is not making good use of her abilities.

On the basis of the above we can identify few important aspects of mental wellness.

1) **Emotional aspect:** Sense of well being, feeling of overall happiness and

contentment (satisfaction)

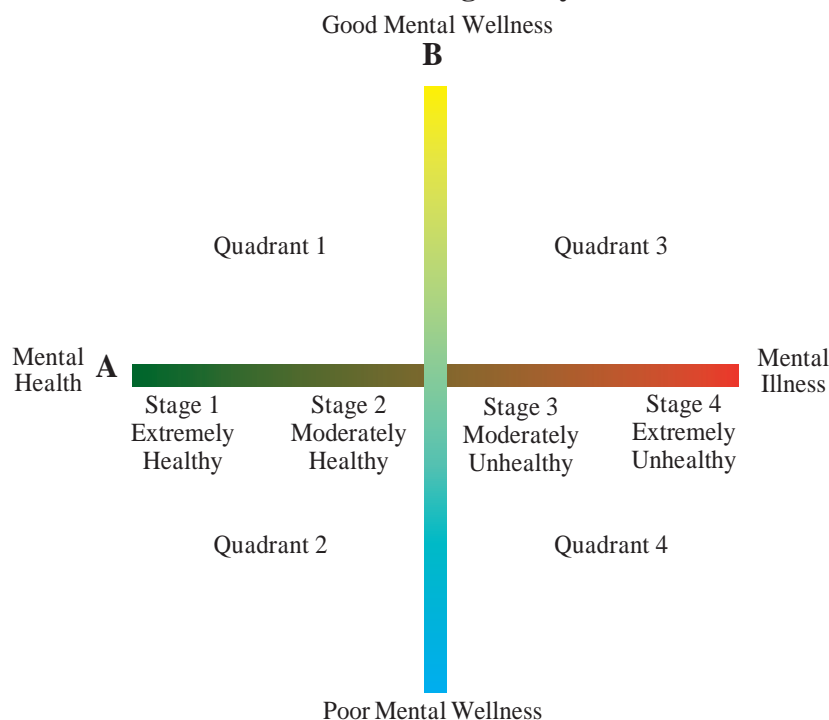
2) **Psychological aspect:** Sense of being worthy i.e. high self esteem, high self confidence and tendency of self actualization (i.e. tendency to develop one's abilities fully), ability to take the right decision, the ability to influence the environment, to satisfy one's needs and the tendency to contribute towards society or community.

3) **Life philosophy:** Having a purpose in life, having clear life goals and a direction in life.

In short, mental wellness is a state of successful performance of psychological functions, resulting in productive activities, fulfilling relationships with people, ability to cope up with stress and ability to change and adapt.

Similar to mental illness continuum, mental wellness also is on a continuum. On one end we find people with good mental wellness while at the other end of the continuum we find people with poor mental wellness. Wellness continuum can be better understood using the following diagram which is based on Illness Wellness Continuum Model given by John Travis in 1972.

**Diagram 2**                      **Illness Wellness Continuum given by John Travis**



The horizontal line (A) denotes illness continuum while vertical line (B) denotes wellness continuum. So we get four compartments or quadrants.

The individual in **Quadrant 1** has no mental illness. He experiences happiness and feels confident to face difficulties. This is the ideal state of functioning.

In **Quadrant 2** also the individual has no mental illness. But he experiences subjective feeling of grief or unhappiness and sees no goals in life.

Individual belonging to **Quadrant 3** is suffering from mental illness. But in spite of illness he experiences high sense of subjective well being, has good self-esteem and is hopeful.

While in **Quadrant 4** we find the individual having two fold problems. He has mental illness and at the same time he experiences distress and sees no goal in life. At times personality disintegration is also observed. This is the lowest level of functioning.

#### Activity 4

In which Quadrants of wellness illness continuum will you place Karan, Lalita, Pramila and Santosh?

Just as our physical health is not the same all the time and when faced with illness we take treatment and regain our health. In the same way our mental health is also not the same all the time and when faced with psychological illness one can take help of an expert and can regain one's psychological health.

### 6.5 Mental Disorders - Its classification:

All disorders, be it psychological or physical, need to be classified because the treatment is directly dependent on its type and the causes. For proper diagnosis and treatment plan, one needs to know which type or category

of disorder it is. For example, if an individual has a fever due to infection of malarial parasite, his treatment plan will be different than the individual who has fever due to typhoid. For this purpose classification of disorders is very essential. For physical disorders the classification is mainly based on the root cause, i.e. etiology. Unfortunately the causes for various psychological disorders are explained differently by various perspectives and theories in psychology. More research is needed for this. Moreover we have just studied criteria for the abnormal behaviour where you might have noticed that there is no reference of etiology or causative factors. The main emphasis is on the cluster of symptoms or syndromes. So classification of mental disorders keeps changing. Nevertheless, attempts are made to make the classification more and more scientific. Psychological disorders are of many types and categories. Presently there are two major systems to classify psychological disorders. They are (1) Diagnostic and Statistical Manual for Mental Disorders (DSM) and (2) International Classification of Diseases and Related Health Problems (ICD)

- (1) **Diagnostic and Statistical Manual for Mental Disorders (DSM)** is classification of officially recognized psychiatric disorders published by American Psychiatric Association (APA). It is mainly used to ensure uniformity of diagnosis by mental health professionals. Its first version was published in the year 1952 (DSM-I) and subsequently revised periodically. The present version of it is DSM-5 was introduced in 2013. It contains 22 broad categories of mental disorders with many sub categories.
- (2) **International Classification of Diseases and Related Health Problems (ICD)** is created by The World Health Organization

(WHO) for documenting all types of diagnoses, diseases, signs and symptoms and social circumstances. It contains a section on psychological disorders. The latest, 11th version of ICD was presented in 2019. According to the ICD-11, there are 19 broad categories of mental disorders, most of which overlap with DSM-5. It is not possible to study all these categories of disorders in just one chapter. So we will limit ourselves to only few common disorders.

## 6.6 Major Psychological Disorders :

### 6.6.1. Anxiety Disorders

One day Hema was driving back home from her office. Suddenly she felt her heart beats were increasing. She felt breathless and was perspiring profusely. She felt so scared that she stopped the car and got out of it immediately. This continued for many days and the frequency of such experiences kept on increasing. Due to this she started getting scared of driving in heavy traffic. If she was driving in heavy traffic she felt as if she would die. As a result she completely stopped driving the car. After a period of time she even stopped stepping out of the house. Frequently she started getting crying spells. She was diagnosed as suffering from Anxiety Disorder.



The word anxiety is derived from Latin word 'Anxietas' which means "uneasy or troubled mind".

**Definition:** When a person feels nervous or worried without any obvious reason for a long time such that it starts interfering with the daily life, it is called Anxiety Disorder.

There are many sub varieties of Anxiety disorders but we will study two major anxiety disorders, namely, generalized anxiety disorder and Phobia

#### A) Generalized anxiety disorder:

We all feel tensed in our daily life due to various reasons, for example, during exams, while speaking in public, etc. It is sometimes beneficial to experience mild tension while shouldering responsibilities or while facing a difficult situations. It compels us to face difficulty in a systematic and planned manner. But instead of mild or moderate tension if it becomes too intense, it starts interfering with our daily routine as well as our work performance. We start feeling tensed or nervous without any reason. We start avoiding people and are unable to perform daily routines.

To diagnose any individual suffering from this disorder, the symptoms should be present for atleast four weeks for children and for six months for adults. Due to extreme nervousness his capacity to solve problems may breakdown. Of course as we have already seen there is not just one criterion to be fulfilled for diagnosis of any disorder, so consultation of the expert is essential.

**Symptoms:** Extreme fear of the unknown, increased heart beats, irritability, frequent headaches, frequent worry, lack of sleep, sensation of vomiting, uneasiness, breathlessness, blackouts, etc.

#### Activity 5

Collect information about Anxiety disorders and discuss this with your friends or parents.

## B) Phobic disorders

Ninad went for his college picnic. From the top of a hill when he looked down he felt an unexplained fear. Few days later when he went to his uncle's house and looked down from 15th floor he experienced the same fear. Thereafter he noticed the same fear whenever he looked down from certain height. He realized that his fear is not normal. These are symptoms of Acrophobia.



The word phobia is derived from Phobos - the name of a Greek god of fear. We all are afraid of something or the other and we normally are able to overcome it with little efforts. But even when something or some situations are either less dangerous or not dangerous at all, if an individual is intensely afraid of it and that creates problems in adjustments in daily life then that fear is called phobia. For example, heights, water, darkness, dog, cockroach, being alone, blood, crowd, elevator, etc. The individual then tries to avoid it at any cost. If it starts interfering with his/her daily life and creates adjustment problems for more than six months then it is called Phobia. In short, phobia is an intense and irrational fear of some objects or situations. There are various sub types of phobias like Specific Phobia, Social Phobia, Agoraphobia, etc.

### Activity 6

Collect information about other types of phobia.

#### 6.6.2. Depressive disorders:

Vinita is 35 years old working lady having two children. Except for earlier few years of marriage, she had disturbed married life due to constant quarrels over small issues with her husband. This resulted into a divorce for which she was totally unprepared. As a result she became very disappointed and lost all hope. She started feeling lonely, frustrated, stressed and started blaming herself for the divorce. The stress of financial crisis and children's education led to disturbances of sleep. She also started experiencing frequent health complaints. She was feeling sad all the time. These are symptoms of depressive disorder.

In the total population 5% to 6% of people suffer from mild depression. Due to some negative incidences or some other external factors the individual may experience negative feelings, but if it continues for a very long time then it is called Depressive Disorder. Feelings of hopelessness, anxiety and sadness are the major feelings experienced in this disorder.

The disorder in which the individual experiences extreme feeling of sadness as well as guilt for at least two weeks, is called Depressive disorder.

**Symptoms:** Feeling of hopelessness, lack of enthusiasm, weight loss, lack of interest in food and loss of appetite, either lack of sleep or excessive sleep, constant feeling of fatigue, sad feeling, excessive feeling of guilt over some matter, sexual dysfunction, suicidal thoughts, inability to concentrate, indecisiveness, etc. are found in the individual suffering from depressive disorder.



### 6.6.3 Bipolar disorder:

This is also called Manic Depressive disorder. In this disorder the individual experiences alternate phases of extreme sadness, hopelessness, stress at one time and extreme happiness, enthusiasm, and elation at other times. In the same individual you can see these opposite conditions one after the other. That's why it's called manic depressive disorder.

**Symptoms:** The individual experiences alternate phases of two states, one in which the individual is extremely happy, excited and elated and in other he experiences sad, stressed, losing hopes, thinks unrealistically, gets irritable or aggressive.

Genetic factors, imbalance in neurotransmitters in the brain, mainly nor-epinephrine, serotonin and dopamine are found to be the main causative factors.

### 6.6.4 Trauma and Stress related Disorders:

When a individual is not able to cope up with the existing situation, he tends to experience stress or tension. Daily problems encountered due to fast paced life, relationship issues, loneliness, lack of proper adjustment, lack of enough personal space, time constraints, consumerism, frustration due to non fulfilment of desires, addiction, prolonged physical illness, constant feeling of uncertainty, family problems, cut throat competition, etc. are causative factors for stress. Stress or tension is inevitable in life. If it is in moderate intensity, it appears to be useful by providing motivation to the individual.

But if the individual experiences intense stress, then his/her capacities to deal with it gets imbalanced. For example, war condition, serious accident, death of a loved one, natural disasters, divorce, sexual abuse, breakup in relationships etc. are the conditions that can create deep impact on the life of the individual and may even be responsible for illness like Stress Disorder. Out of many types of stress disorders let us study two types of stress disorders, (a) Acute Stress Disorder (ASD) and (b) Post Traumatic Stress Disorder (PTSD)

#### A) Acute Stress Disorder:

39 years old Vinesh is a working man and was staying with wife and two children. One night while returning from work, he was surrounded by few gangsters, was beaten ruthlessly, they snatched away all his belongings and threatened to kill him. He started begging for his life. They tied him to an electric pole, tortured him physically and left. After a long time somehow Vinesh managed to rescue himself and went to the police station. Three days later, he started getting nightmares, started getting illusions, was extremely scared most of the time, started getting flash backs of the incidence again and again, could not sleep well and this felt extremely frustrated. Not only that but he could not concentrate on work. He was diagnosed as suffering from Acute Stress Disorder.

If an individual with age of 6 years or greater has experienced or witnessed extreme situation like death of loved one, serious physical injury, natural disasters, sexual abuse like rape, etc. he/she experiences extreme fear, emotional numbness, severe confusion, gets dreams of the incident, or gets uncontrollable thoughts about it, not able to concentrate, not able to sleep, experiences severe guilt about the event and holds himself responsible and goes

into depression. He/she becomes irritable, his/her emotional world becomes unstable, he/she prefers to stay alone, does not take help of others. Upto three days after the traumatic experience such reactions are not diagnosed as stress disorder as they are considered as normal reactions to extremely painful incidence. But if this situation lasts for more than 3 days upto 4 weeks and persists beyond that period then it is called Acute Stress Disorder.

### B) Post Traumatic Stress Disorder (PTSD):

You have just learnt about the symptoms of Acute stress disorder. If these symptoms continue for more than one month with the same intensity i.e. without much improvement, the individual is diagnosed as suffering from Post-Traumatic Stress Disorder (PTSD). In the above example if Vinesh continues to experience acute stress beyond one month, he would be diagnosed as suffering from Post Traumatic Stress Disorder. An individual who has suffered trauma normally goes through three stages.

- 1) **Shock stage:** The individual in this stage is extremely disturbed and is not able to think anything. He is in shock.
- 2) **Suggestible stage:** In this stage the individual tries to find out how to get out of this circumstances by asking others or seeks guidance. In this stage the individual gets extra sensitive towards suggestions given by others to the extent that he may accept any suggestion without thinking over its consequences.
- 3) **Recovery stage:** Though the individual is still under stress but has started regaining his mental balance. He/she is trying to get out of the situation and shows signs of recovery. However some individuals still cannot maintain their mental balance and starts showing signs of mental illness, Post Traumatic Stress Disorder.

### Activity 7

We make use of various strategies to reduce our stress. Speak to five of your friends and make a list of atleast ten different strategies used by them to reduce stress. Share it with your group and discuss which are healthy and which are unhealthy.

### 6.6.5 Substance-related and Addictive Disorders

Mohan is a 20 year old post graduate student. He lives at home with his parents and elder sister, Payal. Mohan's father is an alcoholic. He feels that everyone in his family pampers Payal and ignores him. He feels very neglected at home because of that. One day his friends invited him for a party where alcohol was being served. At the party he consumed alcohol for the first time and liked it. Gradually he started drinking regularly and even after joining work he continued to drink, sometimes he would go to work in a drunken state. His performance at work started declining. He couldn't stay without alcohol, this is an indication of addiction.

Since ancient time human beings made use of the juice of various herbs as a means to increase strength or enthusiasm to reduce pain or sadness. These herbs are also used for experience of euphoria, drowsiness, ecstasy and 'high' or 'kick'. At present, apart from these natural derivatives, there are number of synthetic chemicals that can be used for the same purpose.

After taking addictive substances like opium, charas (hashish), ganja (marijuana), heroin, etc. for several times, the person gets

habituated to it to the extent that he cannot stay without it. This is known as Drug Addiction.

The addict may go to the extent of stealing, begging or borrowing money, and at times may not hesitate to kill someone to get money to buy the addictive substances. His/her physical, mental social and moral health is affected. His/her family life breaks down, financial situations deteriorate, and he/she is not able to focus. Due to continuous and long term consumption of addictive substances, he develops physical dependence on it and may even die due to overdose of drugs. If he tries to either reduce the dose or tries to stop the drugs then withdrawal symptoms are created. Withdrawal symptoms are very painful and creates a threat to his life. He/she experiences tremors, losses control over body movements and may even die.

**Symptoms:** Excessive consumption of drugs or alcohol, inability to reduce the dosage, intoxicated the whole day, desire to consume the substance again and again, reduction in social contacts even with friends, continued consumption even during physical illness or when it is contraindicated, increase the dose to get the same effects, etc. are some of the symptoms of drug addiction.

**Alcoholic Anonymous** is the organization that helps an alcoholic to get rid of the habit of consuming alcohol. There are two groups, one consists of present alcoholic while second includes ex-alcoholic. An alcoholic explains to the addict how his/her life can improve if he / she gets out of his/her addiction and thus provides the emotional support. In this way the ex-alcoholic encourages an alcoholic to get out of the dependence on alcohol.

### 6.6.6 Schizophrenia:

Ronnie, a 20 years old youth joined a firm after completion of his graduation. Soon he became popular as a hard working and enthusiastic person but he didn't like to intermingle with his co-workers . In few days people started noticing the changes in him. He started remaining absent from the work, at home too he remained quiet most of the time, he started experiencing hallucinations, he started feeling as if someone is following him. He started talking to himself and was extremely apathetic. He constantly felt that someone is talking about him and is criticizing him. He felt as if someone is planning to kill him. He was diagnosed as suffering from Schizophrenia.

In 1911, a Swiss psychologist, Paul Eugene Bleuler used the term Schizophrenia for the first time. The term Schizophrenia is made from two terms, Schizein (which means split) and Phren (which means mind). So the term Schizophrenia means split mind. This disorder is not easily seen among children, but mainly starts in adolescence young adulthood. In comparison to females it is found more frequently among males. Schizophrenia is a major disorder involving delusions, hallucinations and disintegration of language, thoughts, emotions and behaviour.

**Symptoms:** According to the DSM-5, there are two different types of symptoms for Schizophrenia. They are (a) Positive symptoms and (b) Negative symptoms.

**(a) Positive symptoms :** These behaviours are an excess of an addition to the normal thoughts or behaviours of an individual. They are as follows.

**(1) Hallucinations:** Hallucinations refer to

false perceptions in the absence of stimulus. It means the individual experiences something even when there is nothing present. For example, even if there is pin drop silence and yet the individual can hear someone talking to him/her, then it is auditory hallucination. Similarly there may be visual, tactile (related to touch), olfactory (related to smell), gustatory (related to taste) or may be related to internal sensations of the body.

- (2) **Delusions:** Delusion occurs when an individual has a belief which is false but the individual is not ready to change it in spite of clear evidence contrary to it. For example, the belief that 'somebody is conspiring to kill me' even when there is no one who is making such plans.
- (3) **Disorganized speech and loosening of association:** The individual's talk is unrelated to each other, like he/she may use useless word or may jump from one point to another which has no connection to the first.
- (4) **Disorganized behaviour (Bizarre movements):** The individual behaves in very strange manner like doing the same act for hours together, screaming without reason, running here and there without any purpose, attacking or biting someone, undressing clothes in public places, etc.
- (5) **Incongruent affect :** Here the emotions expressed by the individual does not match with the situations. For example, the individual cries in happy occasions and laughs in sad occasions.
- (b) **Negative symptoms :** Negative symptoms lead to low levels of functioning and so the quality of the life deteriorates. Generally negative symptoms of schizophrenia does not improve much with treatment. They

are: (1) diminished emotional expression, (2) lack of initiative or enthusiasm, (3) diminished and reduced speech, (4) Anhedonia (no experience of deep positive emotions), (5) Asocial, (6) Apathy.

Sometimes both positive as well as negative symptoms can be seen in schizophrenia patients. If positive symptoms are seen for one month or longer or if negative symptoms are seen for more than six months, the person is diagnosed having schizophrenia.

### Activity 8

The movie "A beautiful mind" is on John Nash, a mathematician who was diagnosed with Paranoid Schizophrenia, and how he copes with disorder. In 1994 he was awarded Nobel Prize for Game theory. Watch the movie and discuss it with friends.

## 6.7 Identifying and treating Psychological Disorders:



So far we have tried to understand a few of the psychological disorders. After this understanding few questions inevitably pop up in our mind. One such question is whether there are any ways you can easily identify people with mental disorders at an early stage. The answer to this question is YES! There are a few signaling signs that can help one to identify individuals who may require help of an expert in mental health. These are called red flags. Red flags for

various disorders are generally used to identify people in need of professional help.

### Activity 9

Identify from the internet the red flags (signaling symptoms) for various disorders that you have already studied.

If you carefully study all the symptoms of various disorders, you will realize that there are many symptoms which are common among many disorders. If you find such symptoms in any individual, find out if it satisfies these three requirements. The first is it should be for a considerably long period of time. Second, find if symptom has become more severe or serious over a period of time. Lastly, find if the symptom has created any problems in the life of the individual or not. If the answer for all three is affirmative, it is likely that the sign indicates the beginning or existence of psychological health problem. Keeping all these considerations in mind, study the "Signals indicating need for professional help" given below

Signals indicating need for professional help

- 🚩 Inability to concentrate
- 🚩 Inability to sleep well
- 🚩 Various physical complaints
- 🚩 Uncontrollable and frequent bad thoughts
- 🚩 Too intense uncontrollable negative feelings (fear, anger, sadness, worry, etc.)
- 🚩 Severe confusion
- 🚩 Memory loss
- 🚩 Loss of interest in activities and friends
- 🚩 Odd or irrational statements or strange use of words or way of speaking

🚩 Self-harm

🚩 Signs of self-neglect

Another question that immediately follows once you have identified the individual in need of professional help is, whether they are any ways such individual can lead a normal life again. Fortunately, the answer to this question is also affirmatively **YES!** There are various treatment modalities that can be helpful for different disorders. These treatment strategies range from pharmacotherapy (i.e. drugs) to various psychotherapeutic techniques like Rational Emotive Behaviour Therapy, Humanistic therapy, Gestalt therapy, Interpersonal psychotherapy, Family and couple therapy, etc. It is beyond the scope of this book to narrate them even in nutshell. But one note of caution needs to be mentioned here. If you find any individual having benefited with one type of therapy, it does not necessarily mean that the other individual also will benefit from the same therapy. One must keep in mind several factors and considerations before deciding the line of treatment. This can be best done by an expert in the field. So the best thing is to seek out a professional and get the required help. It is rightly said, "Having a mental disorder isn't easy.... It is even harder to accept, 'Yes, I am ill'..... The hardest of all is when people assume 'you just can get over it'.... The fact is you cannot 'automatically' just get over it, you need to work towards the right path to be able to get over it! Healing is not automatic, it's a journey that needs to be trodden."

## Summary

- Psychological disorder is a condition that involves experience of distress and impairment that affects his/her emotion, behavior, thought and levels of functioning.
- Psychological condition of disorder is dynamic and ever changing. Psychological health and illness are not two distinct categories, but instead, lie on a continuum.
- The major criteria for mental disorder are : clinical syndrome, distress, impairment and dysfunction. But expectable responses to stressors and behaviour conflicting with social, cultural or political system are not signs of psychological disorder.
- Dimension of mental wellness is different from dimension of illness. Mental Wellness is concerned with certain positive emotional and psychological aspects and with

well-defined life philosophy.

- DSM and ICD are two major classification systems to classify psychological disorders. There are various psychological disorders including Anxiety disorders, Depressive disorders, Bipolar disorders, Substance related and Addictive disorders, Schizophrenic disorders and many more.
- There are many signals that can indicate onset or presence of psychological disorders which can be helpful to identify them at an early stage.
- There are different therapies for the treatment of mental disorders that are available. Only mental health professionals are qualified to make decisions regarding which treatment plan to follow.

## Important Concepts

- Mental Wellness
- Distress
- Dysfunction
- Syndrome
- DSM-5

- ICD
- Alcoholic Anonymous
- Hallucination
- Delusion

## Important Psychologists

- **John Travis** : He is an American author and medical practitioner who introduced the concept of "Wellness" and originated the illness-wellness continuum

- **Paul Eugene Bleuler** : He was a Swiss psychiatrist who coined the term "Schizophrenia" in 1910 derived from the Greek words "Schizein" (split) and "Phren" (mind).

## Exercises

### Q. 1 (A) Choose the correct alternative and complete the sentences.

- 1) \_\_\_\_\_ is the present system for classification of mental disorders.  
a. DSM-5      b. WHO      c. APA
- 2) Term Schizophrenia was first used by \_\_\_\_\_.  
a. Albert Ellis      b. Eugen Bleuler  
c. John Travis
- 3) World Health Organization has developed \_\_\_\_\_ for classification of all types of disorders.  
a. ICD      b. DSM      c. MCA
- 4) We find alternate phases of depression and mania in \_\_\_\_\_ disorders.  
a. depressive  
b. bipolar  
c. anxiety

### (B) Match the pairs :

- |                         |   |
|-------------------------|---|
| 1) Phobia               | a) 2013                                   |
| 2) DSM-5                | b) Wellness                               |
| 3) ICD - 11             | c) Schizophrenia                          |
| 4) Eugene Bleuler       | d) 2019                                   |
| 5) John Travis          | e) Illogical fear                         |
| 6) Depressive disorders | f) Sad feelings for a long period of time |

### (C) State whether following statements are True or False :

- 1) Socially or culturally deviant behaviours are signs of psychological disorders.
- 2) Schizophrenia is a serious psychological disorder.
- 3) Feeling of hopelessness is one of the symptoms seen in depressive disorders.

### (D) Answer in one sentence :

- 1) From which Latin word is the term anxiety derived?
- 2) In which disorder does the person experience sadness and guilt for a long period of time?
- 3) What do you call the fear that you experience unnecessarily in a non threatening situation?

### Q. 2 Answer the following questions briefly :

- 1) Explain the nature of psychological disorder.
- 2) What is meant by Anxiety disorders?
- 3) Narrate indicators of psychological disorders.
- 4) What is meant by Bipolar disorder?
- 5) Describe Post Traumatic Stress Disorders?

**Q. 3 Explain the following concepts.**

- (1) DSM - 5      (2) ICD 11
- (3) Phobia      (4) Syndrome
- (5) Hallucination

**Q. 4 Write short notes on the following :**

- 1) Nature of mental wellness
- 2) Drug Addiction
- 3) Depressive disorders
- 4) Anxiety disorders

**Q. 5 Answer the following in 150 to 200 words:**

- 1) Describe the criteria of Psychological disorders.
- 2) Narrate any two psychological disorders in detail.
- 3) What is Schizophrenia ? Describe the major symptoms of it.



## 7. First Aid in Mental Health

### 7.1 Introduction

### 7.2 Need for first aid in mental health

### 7.3 ALGEE Model- Action plan

### 7.4 First aid in

### 7.4.1 Depression

### 7.4.2 Anxiety

### 7.5 Certain Behavioural issues

### 7.5.1 Internet and social media usage

### Learning Objectives

1. To sensitize students to mental health issues.
2. To make them aware of the signs and symptoms of various mental illnesses.
3. To acquaint them with various first aid techniques for mental health issues.
4. To increase their awareness about the importance of mental health professional.

### Activity 1

- Make a list of the activities you perform to take care of your physical health. Now make a list of the activities you perform to take care of your mental health. Discuss the two lists in your class.
- How many things could you list? Did you find making one list easier than the other?

### 7.1 Introduction :

If you found making the second list harder, do not worry you are not alone. We are usually aware of what we need to do to take care of our physical health but we are unsure of how to take care of our mental health.

As children, our parents always tell us

what we need to do in order to lead a healthy life. Usually this advice is about the behaviours we should adopt in order to stay healthy. For instance, before exams, they might tell you to eat food that has been cooked at home, get adequate sleep etc. This is done to make sure that you do not fall sick during the exams. These are some of the preventive measures that are taken to protect the body's immune system which might already be compromised due to the stress of the examination. We all agree that our physical health is important; do you think our mental health is any less important? How much care do we take of our mental well-being?

Look at the box given below -

### Box No 1

#### Mental health statistics in India

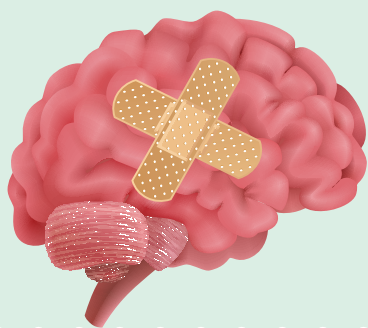
According to a study conducted by National Institute of Mental Health and Neuro Sciences (NIMHANS) from 2014 to 2016

- 10% of the population suffers from common mental disorders.
- 1.9% suffer from severe mental disorders.
- 13.7% of the Indian population will at least once in their lifetime be diagnosed with a mental disorder.

It is important to remember that even if one isn't diagnosed with a mental disorder, stressors of daily life such as pressures at work or studies, overcrowding, lack of social support can all contribute to poor mental health.

#### Do you Know?

Mental Health First Aid( MHFA) is an internationally recognised training programme designed to teach people how to identify the signs and symptoms of mental health and provide assistance on a first aid basis. The MHFA course was originally developed by Betty Kitchener, a registered nurse specialising in mental health education and Anthony Jorm a professor of psychology in Australia.



## 7.2 Need for first aid in mental health

As we have seen, many individuals in India can benefit from mental health first aid. Unfortunately, many do not get the help they need due to various constraints.

### Box No 2

#### Some of the hurdles to receiving treatment

- Lack of knowledge
- Lack of awareness
- Cost of treatment
- Non-medical explanations for mental illness like evil spirits, black magic etc.
- Shortage of trained mental health professionals.
- Unwillingness of the individual and the family members to get treatment due to stigma.
- Untrained individuals giving wrong advice.
- Slow improvement in the individual's behaviour.

Given below are some of the reasons why first aid in mental health is required

#### 1. Stigma associated with mental illness

One of the major obstacles to getting help from a mental health professional is the stigma that is attached to mental illness. We fear things we do not understand. In the same way our lack of understanding of mental illness makes us fear it. This lack of knowledge and awareness makes us-

- a) Blame the individual i.e. think that mental illness is a personal failing or weakness.
- b) Think that mental illness is caused as punishment for our sins.
- c) Think that the person is intentionally behaving in an inappropriate way.

## 2. Shame

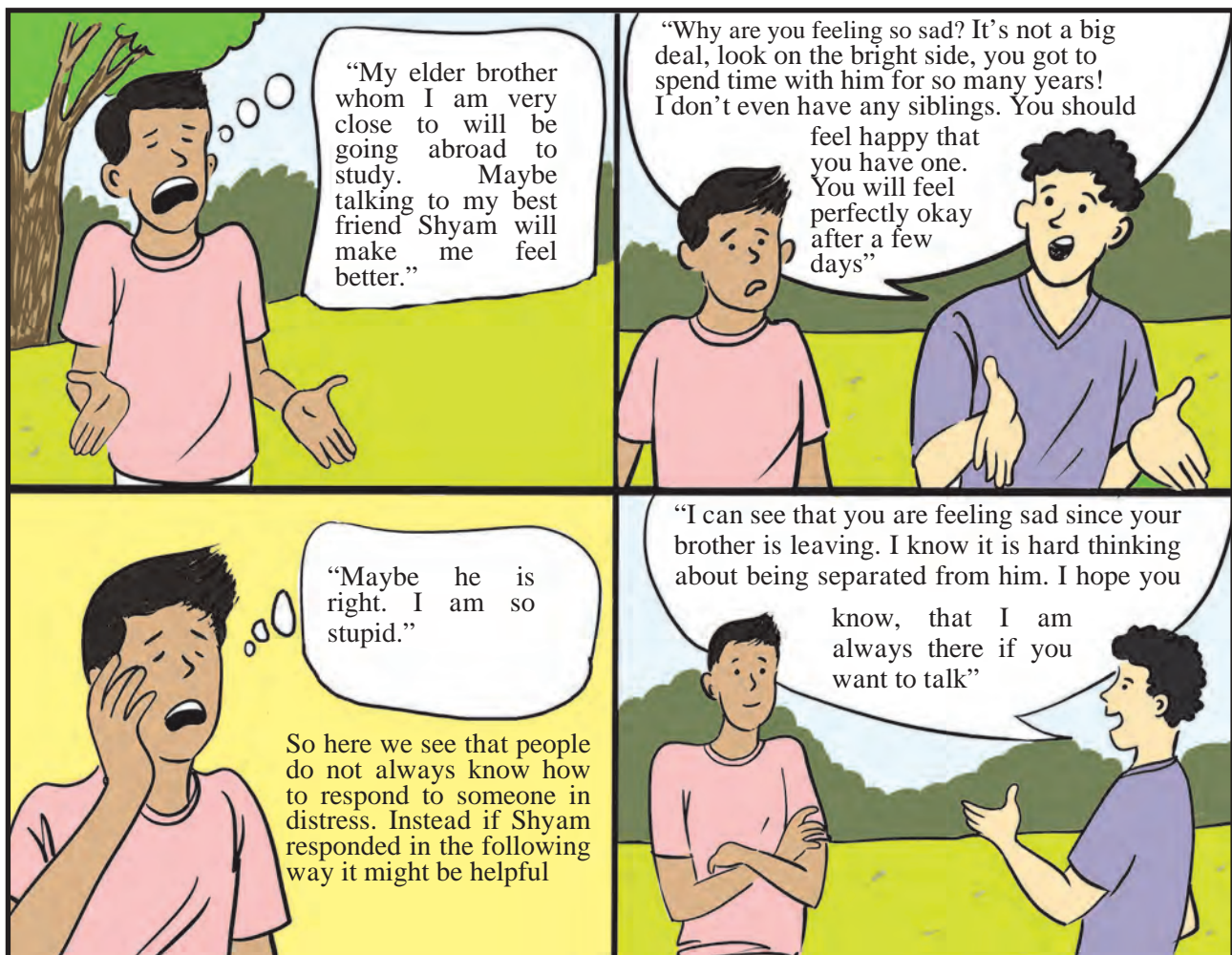
When a person experiences shame, he/she tries to hide from others. For example- If Jai fails in his 10th board exam; his academic failure is considered to be an act that brings shame not only to him but also to his family. As a result they withdraw from social interactions.

When we experience shame we do not want to talk about it. It prevents us from reaching out to others and therefore we do not seek help. It is important to remember that mental illness is caused by a complex combination of factors like genetics, socio-cultural factors, environmental factors etc.

It is NEVER caused because of personal weakness. Thus blaming the individual who has been diagnosed with a mental illness is not helpful. Instead, it will be beneficial to provide support and show understanding towards the individual.

## 3. People do not always know how to respond

We really want to help our friends who come to us for advice but we aren't always successful as we do not know exactly what to say. In these cases we might do more harm than good. Let's see the case of Amit and Shyam.



### Word of Caution

We must always remember that like in the case of a physical illness which is treated by a board certified medical doctor. In the case of mental illness also medication and therapy must **ONLY** be given by a trained and certified mental health practitioner. In first aid in mental health, the idea is **NOT** to look at your friends or family as a **substitute for professional help**. The idea is helping the family, friends etc. of the individual to identify early signs of mental illness and help the individual get medical and professional help.

#### 4. People with mental illness do not always seek help

It is seen that very often people with mental illness will not go to a mental health professional for treatment. There are a number of reasons for this. Some of the reasons are as follows.

a) **Culture-** In our culture the behaviour of an individual is considered to be a reflection of one's family. The stigma attached to mental illness, prevents individuals from seeking professional help as it might hurt the reputation of the family.

b) **Advice from elders-** Many a times we look to our elders for advice to solve our problems. People might incorrectly believe that advice and guidance of elders alone will be sufficient to cure mental illness and do not feel the need to go to a mental health professional.

c) **Superstitions -** Individuals who believe that mental illness is caused due to sins or due to supernatural forces are less likely to go to a medical professional. They do not think the

illness can be treated by modern medicine and psychotherapy and prefer going to untrained professionals.

First aid in mental health is a concept which is based on the idea of “prevention is better than cure”. Mental illness usually does not develop ‘out of the blue’. Often there are small or subtle changes where the individual feels like something is not right. People around them might also notice a change in their thinking, feelings or behaviours. If these early signs are recognised, it can help in the following ways

- 1) **Diagnosis** - It might prevent a severe form of the illness from developing.
- 2) **Intervention** - It can help the individual get help. This is known as early intervention.
- 3) **Relapse prevention** - It can prevent the reoccurrence of the symptoms of the illness if they occur after a period of improvement.

### Do you Know?

Chennai has obtained the International license in the year 2017 to carry out the standard MHFA programme across India. Since then it trains thousand of MHFA instructors to reach out to people suffering from mental illness

#### 7.3 The ALGEE- Action plan

**‘Be the difference in someone’s life- Apply ALGEE’**

### Case study

Ali is 19 years old and the captain of the cricket team. He was popular amongst his classmates and well liked. But for the

last month, he had stopped interacting and going out with his friends, he would rarely respond to text messages or answer calls. He had suddenly broken up with his girlfriend after an argument and now he feels very guilty about that. Ali was having difficulty sleeping and concentrating at college. Ali had lost lots of weight in the past month, and he looked tired and irritated. As captain of the team, he had always been calm. But during a match when his team was losing, he fought with the umpire. Due to his behaviour he was asked to leave the field. His best friend Rahul had noticed all these behaviour changes happening over the past month and was concerned for his friend. He wanted to help him but didn't know how to help.

Write down what you think Rahul should do to help his friend.

In this section, we are going to see one of the methods that can be used as part of first aid in mental health to help someone you think is in need. After reading the next section, see if the answers you gave for the above scenario are similar.

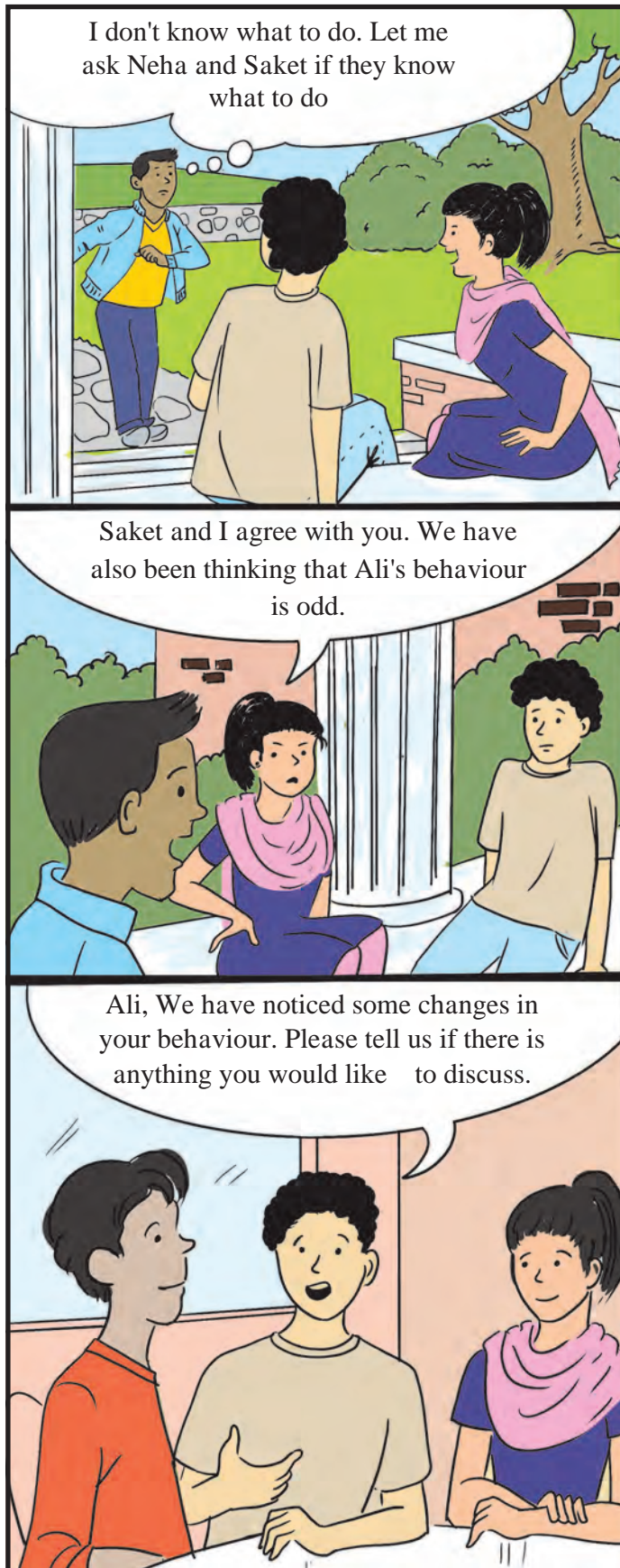
Often we have an image in our minds that someone suffering from a mental illness will behave (eg. talk to themselves, be violent) or dress (eg. wear torn or dirty clothes) in a certain way. However in majority of the cases individuals with a mental illness will appear just like someone without a diagnosed mental illness.. Their behaviours initially might appear to be different from how they usually behave only to close friends and family members, like we saw in Ali's case. If these early signs are recognised as being a 'red flag' that is something to be concerned about, then steps can be taken to try and prevent it from becoming a bigger problem.



**Diagram no 1 : Showing the ALGEE - Action plan**

(Source : <https://mhfa.com.au>)

## 1) Approaching, assessing and assisting :-

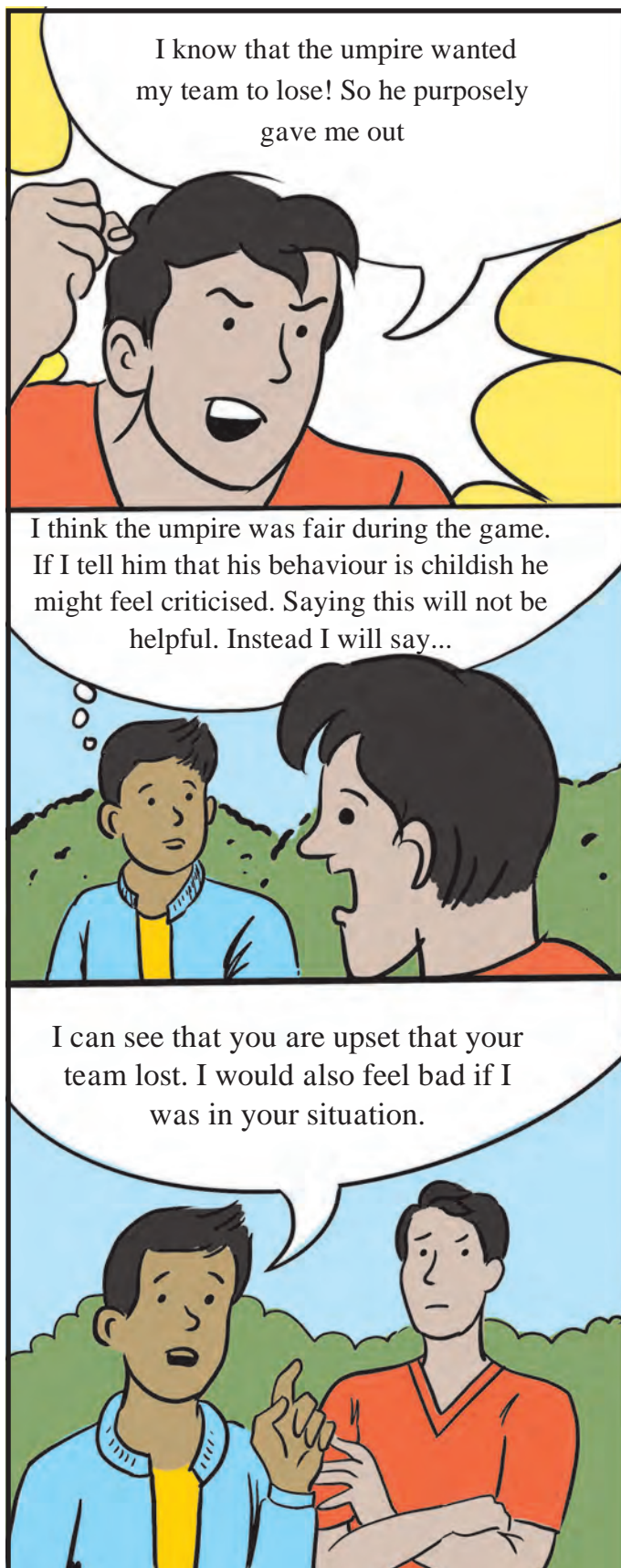


It is a common tendency to avoid things that make us uncomfortable like talking about feelings. We find it difficult to reach out to people who are in distress as it makes us uncomfortable. We stay quiet out of fear of offending the other person.

Here Rahul could have done nothing or just gossiped about Ali's behaviour but instead he has used the concern he feels positively to try and help Ali.

Rather than being a mute spectator, approaching the person you are concerned about what will be helpful. Though the term used is assessment we are not referring to the use of psychological tests. It can be based on assessing the individual's behaviour through observation. Here an attempt is made to understand the situation and notice if there are any behavioural changes in the individual.

## 2) Listening non-judgmentally



Many a times though we are trying to help, our responses can be damaging. Often this happens because we say things that make the individual feel guilty about how they are feeling, sorry for themselves or helpless.

Listening non-judgmentally means that you listen to the other person without letting your own views and opinions influence you. While listening we must ensure not to criticise as it makes the other feel judged and they become defensive and stop talking. Listening non-judgmentally does not mean you have to agree with what the other person is saying. It means that you are showing them empathy and are accepting them. You show that you understand that they are currently struggling with certain situations. When we are able to listen non-judgmentally the other person feels supported and speaks more freely.

### 3) Give support and information

Ali talking to Rahul, Neha and Saket



Offering genuine support to someone shows them that they matter. Individuals who receive support feel more in control of the situation. It reminds them that they are not alone.

#### 4) Encourage to get professional help



In your last year's textbook, you already have studied the work done by counsellors and clinical psychologists. Just as we go to a doctor when we fall sick, likewise we should not hesitate to go to a mental health professional when we are dealing with a mental health issues. Mental health practioners are trained. Thus they can help an individual identify their problems. They also help the individual cope with the situation.

## 5) Encourage self help and other support strategies



In addition to professional help, making the individual aware of other ways to deal with a difficult situation is important. Having social support i.e. the support of loved ones can be healing.



Self help strategies refer to tasks that you can perform yourself. These are tasks that help maintain your mental health. This will help increase your resources to deal with stress. Refer to Box no. 3 for some suggestions of strategies that you can incorporate in your daily life.

### Box no. 3

Self help strategies are not luxuries but rather essential things that can be incorporated in your life

#### 1. Sleep hygiene

Ensuring that you get 7 to 8 hours of sleep every night. You should try to maintain the same schedule, that is go to sleep every night at the same time and wake up at the same time every day. This will help set a routine and improve your well-being

#### 2. Reduce screen time and digital involvement

You should disconnect everyday for some time from your gadgets. Try to set a time limit for the number of hours you will surf the internet each day.

#### 3. Physical activity

Try to add some physical activity in your day to day schedule. This can be playing a sport or just going for a walk every day.

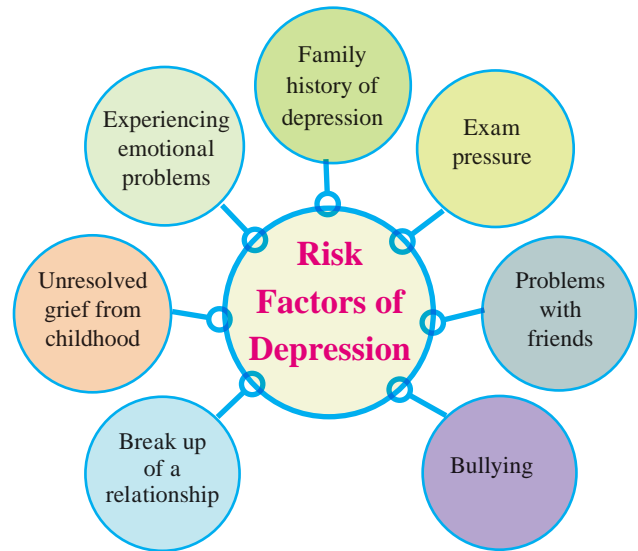
#### 4. Engage in activity that you enjoy doing, cultivate hobbies

This can be any activity like reading a book or listening to your favourite song.

#### 5. Build and maintain Social Support -

Meeting and spending time with your friends and family . Participating in social gatherings.

### 7.4.1 First aid in depression



We all feel sad or unhappy from time to time but in most cases when our situation changes, we no longer feel this way. However if we continue to experience these emotions for a long period of time then it might require attention. If unattended this can lead to the development of a disorder such as depression.

Individuals who experience depression commonly have negative thinking style with the themes of hopelessness and helplessness. They may say things to themselves like:



### 7.4 First aid in mental illness

In this section we will see how the action plan that we just studied can be applied to psychological illnesses. We will be looking at two illnesses – depression and anxiety.

Some of the changes seen in the behaviour of individuals suffering from depression:

1. Complain of feeling tired all the time and sleep more than usual
2. Not doing household chores or forgetting to do inspite of telling them
3. Withdrawing from the family and spending much time alone
4. Getting aggressive especially seen in boys
5. Continuously remain sad
6. Perform poorly in exams
7. Bunk the classes or remain absent
8. Have difficulty in understanding what is taught in the class
9. Avoid friends and spend time alone
10. Engage in risky behaviours like alcohol and drug use etc.

### Activity 2 - Try this

There are certain times when you feel tense or anxious. One strategy that we can use to help us calm down is the 5-4-3-2-1 technique. This is a simple technique that you can use whenever you are feeling overwhelmed by the situation and need to relax. First take a few deep breaths and then follow the below instructions-

- Think of 5 things that you can see around you. For example, a pen, book etc.
- Think of 4 things that you can touch around you. For example, your hair, the ground under your feet etc
- Think of 3 things that you can hear around you. For example, the sound of traffic, sound of people who are talking around you etc.

- Think of 2 things that you can smell around you. For example, the scent of soap from your hands, the fragrance of your deodorant etc
- Think of 1 thing that you can taste. For example the taste of the last meal that you had etc.

Performing this exercise will help you focus on the present and stop worrying.

### 7.4.2 First aid in anxiety

Feeling anxious in certain situations is normal. However if your anxiety is not in the proportion to the situation or if it continues even after the anxiety creating situation has subsided, it's a matter of concern. If unchecked or not treated such type of anxiety can reach to the extent of anxiety disorder.

Some factors contributing to anxiety are as follows:

- 1) Genetic factors: Individuals who have family history of anxiety that is if they have anyone in the family who was or is suffering from anxiety issues, such individuals are at a higher risk.
- 2) Brain chemistry: Imbalance of certain neurotransmitters
- 3) Traumatic event like abuse, rape or sudden death of any of the parent
- 4) Parental divorce
- 5) Stress about college exams

Anxiety can be a matter of concern when it starts affecting and interfering with the functions of daily life of the individual. There are different types of anxiety disorders like social phobia, separation anxiety disorder, acute stress disorder.

In general the symptoms of anxiety are as follows:

Physical Symptoms	Psychological Symptoms	Behavioural Symptoms
<ul style="list-style-type: none"><li>• Heart palpitations and rapid heart rate</li><li>• Shortness of breath</li><li>• Dizziness or headaches</li><li>• Restlessness, tremors and shaking</li></ul>	<ul style="list-style-type: none"><li>• Mind racing or going blank</li><li>• Difficulty in concentration</li><li>• Forgetfulness</li><li>• Problems in decision making</li><li>• Irritability, impatience and anger</li></ul>	<ul style="list-style-type: none"><li>• Avoiding people and situations</li><li>• Repetitive checking</li><li>• Strong urge to escape the situation</li></ul>

Individuals who are anxious may -

1. Not want to go to college or work
2. Complain repeatedly of various physiological problems
3. Get irritated while interacting with their friends or family
4. Spend lot of time worrying about how they look
5. Be extremely quiet in the class or at work and get scared of asking questions to the teachers or colleagues
6. Sometimes ask the same questions repeatedly
7. They visibly show the physical symptoms of anxiety like sweating or excessive body movements.

Now that we have seen what kind of thoughts and behaviours of individuals dealing with depression and anxiety exhibit, let's try to see how they can be helped.

The action plan for providing first aid we have already discussed in 6.3. Now we will discuss it from the point of view of depression and anxiety.

#### Step 1:

If you see your friend showing symptoms that are mentioned above and if you feel that there might be a chance of the person harming himself, the first thing to do is meeting his/her close family members and sensitizing them about the seriousness of the issue. Also you can approach the mental health professional along with the family members and discuss your concerns

#### Step 2:

You can give your friend a patient hearing and understanding that neither is he/she behaving like that purposely or he/she is weak.

Instead he/she is suffering from a problem and needs a compassionate hearing from someone. Remember you should neither criticize your friend while listening, nor should you make any harsh comments.

### Step 3 :

Sometimes the person may experience shame or feel guilty. In such a situation you can help the person by giving hope and making them realize that:

- a. Many people are diagnosed with mental disorders.
- b. Having a mental illness is not their fault.
- c. One may take some time to get better with the help of a proper mental health professional but it is certainly curable.

### Step 4 :

As mentioned in step 3, depression and anxiety are curable with proper scientific treatment given by a mental health professional. You can support, encourage and even accompany your friend to see a counselor or psychotherapist. Getting the person proper professional help in mental health care is the KEY to dealing with mental health issues.

### Step 5 :

You can help the person identify some of the positive behaviors which can help them to cope with their mental health issues. They can engage in the activities which they like or which they always wanted to pursue. Performing self help strategies can also help them regain control over their life.

Encourage them to use simple relaxation techniques as follows-

- Using laughter

- Deep breathing techniques
- Exercises like walking or running or playing any outdoor games etc.

In the case of anxiety and depression seeking professional help is very crucial. So encouraging a person to reach out to a professional for help is the most important.

### Activity 3 - Try this

#### 4-7-8 Breathing

This is an activity that you can do when you are upset by something. You can try doing this breathing exercise to relax before reacting to the situation.

Steps-

- Exhale completely through your mouth
- Close your mouth and inhale through your nose for 4 counts
- Hold your breath for 7 counts
- Exhale completely through your mouth for 8 counts
- This is one cycle, you can repeat this cycle three more times. With practise this will get easier.

### 7.5 Certain Behavioural issues

You may have heard of people becoming addicted to substances like alcohol, drugs or cigarettes but did you know that the same can happen with certain activities? Sometimes people feel the need to engage in an activity or behaviour even though it has a negative impact on their mental and physical health. It can also have an impact on their ability to function at home, school, college or at work. Such

behaviours are called behavioural addictions. Some examples are shopping addiction, internet addiction, excessive social media usage, exercise addiction, gambling addiction etc. these behaviours are not considered to be a mental disorder according to the DSM-5 (Diagnostic and Statistical Manual of Mental Disorder-5). But they can still be a cause for concern. When an individual gets addicted to such behaviours, the following is seen-

- 1) They are unable to stop performing such behaviours as they find them to be rewarding i.e. it makes them feel happy or excited.
- 2) It adversely affects significant relationships in their life.
- 3) They experience negative consequences due to constantly engaging in such behaviours.

### 7.5.1 Internet and social media usage

#### Box no. 4

**SHUT** - Service for Healthy Use of Technology is a clinic started by National Institute of Mental Health Service (NIMHANS) in Bengaluru. This clinic has been started to deal exclusively with technology-related mental health issues.

The first case seen by the SHUT clinic was of a 26 year old unemployed man who had been referred for treatment because he was addicted to watching Netflix. For over the last six months he had been watching online television serials on Netflix for most of the day. The psychologist after interacting with him found that he was using this online streaming as a way to escape from reality.

He was unable to deal with the pressure that his family was putting on him to earn a living. Watching his friends doing well while he wasn't also had a negative impact on him. He was unable to exercise self-control.

Now a day's using the internet is essential. It is important to remember that the internet is not the problem. How we use it and for how long we surf the internet everyday is what can lead to problems. While the amount of time we use the internet can be a concern, so is what we are using it for. For example online gambling, gaming, pornography etc. In the above example we saw an extreme real life example of what being addicted to the internet can look like. Most of the time people do not need to get professional help, but their overdependence on the internet can lead to problems in their life.

#### Activity 4

#### Are you using the internet excessively?

#### Self assess – using the four C's

1. **Craving** - Do you have an intense desire to use the internet?
2. **Control** - Do you have an inability to control your self using the internet?
3. **Compulsion** - Do you find it difficult to stop using the internet you know you should not spend so much time on it? even though you know?
4. **Consequence** - Have you ever experienced any physical or psychological ill effects as a result of excessive use of the internet?

If you answer a 'yes' for at least three of the C's, it can be a matter of concern.

Some of the ‘red flags’ that indicate an overdependence on the internet are -

- ❏ Procrastination
- ❏ Boredom with routine tasks
- ❏ No sense of time
- ❏ Feelings of euphoria when using the internet
- ❏ Inability to prioritize or keep schedules
- ❏ Failing to eat or eating excessively to avoid being away from the computer
- ❏ Physical symptoms like- headaches, neck pain, dry eyes, backache
- ❏ Poor personal hygiene like not having a bath to stay online

If you notice that you or your friends are showing these ‘red flags’, you can adopt some of the measures that have been mentioned in this chapter.

### Summary

- There are many ways to detect Physical Illness. However, There is lack of awareness on the strategies to detect mental illness.
- The concept of First Aid in mental health is not known to many and hence millions of people suffering from mental illness go undiagnosed.
- MHFA is given until appropriate professional treatment is received or until the crisis resolves.
- The ALGEE model is a mnemonic device for MHFA’s 5 step Action Plan.

With the strategies and techniques discussed in the chapter, one can provide some simple yet important first aid to the person showing signs and symptoms or red flags of psychological problems. When these go undetected for a longer period of time, it results into a bigger psychological problem.

However one thing you should never forget that such psychological issues can be treated **ONLY** by mental health professionals and **NOT** by a layman. You can only be the bridge between that person and the mental health professional and can encourage the person to seek proper professional help.

Providing the person first aid in mental health issues is just as important as in the case of physiological issues and can at times be life saving!

- Depression is a serious mental illness that can take a terrible toll on you and your family. It often worsens if undiagnosed and can result into severe emotional, behavioural and health problems that affect all areas of a person’s life.
- Excessive ongoing anxiety is a major cause of concern and interferes with day to day activities. In most cases it improves with constant practise of coping skills, using self-care and support strategies and making lifestyle changes.

## Important Concepts

- Mental Health
- Mental well-being
- Stigma
- Distress
- Sleep Hygiene

- Depression
- Anxiety
- Social phobia
- Procrastination

## Important Psychologists

- **Anthony Jorm** : He is an Emeritus Professor at the University of Melbourne. His research has focused on the prevention and early intervention

of mental disorders at the community level. He was also the co founder of the Mental Health First Aid Programme.

## Exercises

### Q.1. Fill in the Blanks:

1. One of the major obstacles to getting help from a mental health professional is the \_\_\_\_\_ attached to mental illness.  
a. policy      b. stigma      c. society
2. Friends and family are not a substitute for \_\_\_\_\_.  
a. solving problems      b. giving solutions  
c. professional help
3. In our culture the \_\_\_\_\_ of an individual is considered to be the reflection of one's family.  
a. intelligence      b. behaviour  
c. status
4. Individuals who experience \_\_\_\_\_ commonly have a negative thinking style.  
a. depression      b. phobia  
c. acute stress

### Q.2. Answer in 25-30 words:

1. Describe the term Mental Health First Aid?
2. What are the stigmas attached to mental illness?
3. 'Anxiety disrupts day to day functioning of an individual : State two predispositional factors contributing to anxiety.

4. Your friend confided in you that he is suffering from anxiety.  
Suggest two self- help strategies to help him deal with this issue.

### Q.3. Answer the following in 80-100 words:

1. List the common reasons why most people usually do not seek help during mental illness.
2. Explain the ALGEE Model in your own words.
3. Enumerate the various symptoms an individual with anxiety disorder exhibits.
4. Justify with the help of examples what over independence on the internet means.

### Q.4. Analysis the following Case study:

Sujata is now a sad and lonely girl. She has cut off herself from all her relatives and family friends. She doesn't participate in any college programmes nor family functions. She is mostly found in the library all by herself. She has lost her self- confidence. At home she prefers eating in the bedroom and mostly indulges in television or mobile activities.

Apply the ALGEE model and help Sujata to evolve in her mental health.



## 8. Positive Psychology

### 8.1 Introduction

### 8.2 Meaning of Positive Psychology

### 8.3 Nature and Importance of Positive Psychology

#### 8.3.1. Life above zero

#### 8.3.2 Positive emotions- Broaden and Build Theory of emotions

### 8.4 Happiness

#### 8.4.1 Definition of happiness

#### 8.4.2 Theories of Happiness

#### 8.4.3 Determinants of happiness

### 8.5 Optimism

#### 8.5.1 Meaning of optimism

#### 8.5.2 Optimist versus pessimist

### 8.6 Empathy

#### 8.6.1 Meaning of empathy

#### 8.6.2 How can empathy be nurtured?

### 8.7 Mindfulness

#### 8.7.1 Meaning of mindfulness?

#### 8.7.2 Mindfulness Meditation

### 8.8 Resilience

#### 8.8.1 Meaning of Resilience?

#### 8.8.2 Importance of Resilience

#### 8.8.3 The 7 C's of Resilience

#### 8.8.4 Types of Resilience

### Learning objectives:

1. To develop an understanding about positive psychology as an emerging branch of psychology.
2. To illustrate an understanding on the nature and importance of positive psychology.
3. To relate and understand positive emotions like Happiness, Optimism, Empathy, Mindfulness and Resilience and apply key elements in their day to day life.
4. To explain and demonstrate a clarity on the concept of Life above zero and Broaden and Build theory and apply it to their daily life.
5. To discuss and analyse the determinants of happiness and choose to adopt the same to enhance happiness in their life.
6. To develop an understanding and explain methods to promote empathy, mindfulness meditation and the 7 C's of Resilience and nurture it in day to day life.

## 8.1 Introduction:

In today's world people are facing social and personal challenges in the form of natural disasters, terrorism, recession, death of near and dear ones, failure, extreme competition. In face of such adversities and negativities, is there anything which helps in enhancement of happiness? To live a happier, healthier life, it is important to learn how to be positive.

This chapter will take you through the new science of Positive Psychology. This will help you to understand, measure and promote positive experiences such as optimism, happiness, growth etc.

You might have seen people doing things in spite of no personal and or materialistic gains like, selfless service to others, efforts to save lives of others at the cost of one's own life etc. Why is it so? This question was raised by many psychologists too. Some of them believed that it is due to the fact that such virtuous behaviours are the inherent qualities found among most humans. On the other hand you might have seen other people who despite being aware that certain behaviours are incorrect still indulge in it. We typically focus more on the negative rather than positive things. Hence traditional psychologists have always focused on the study of undesirable behaviors or disorders rather than on the positive aspects of human behavior. As a reaction to this, Positive psychology focuses on virtues, character strengths, happiness, leading to achieving a meaningful and enriching life.

## 8.2 Meaning of Positive Psychology

Positive Psychology is a newly emerging branch of Psychology. 'Positive psychology is the scientific study of what makes life worth living' - 'Peterson, 2008'. It is a scientific

approach to study human thoughts feelings and behaviour. It focuses building on the personal strengths and all the positive qualities and experiences in life.

**Martin Seligman** officially introduced Positive Psychology as a subfield when he chose it as a theme of the American Psychological Association Conference in 1998. So this branch of psychology gives importance to studying things like joy, courage, happiness rather than stress, anxiety, illness, disorders, conflicts, frustrations etc.

There is no common definition of Positive Psychology. Seligman defined positive psychology as "The scientific study of positive human functioning and flourishing on multiple levels that include the biological, personal, relational, institutional, cultural and global dimensions of life". In short, Positive Psychology is the science of happiness, human strength and growth .

## 8.3 Importance and Need of Positive Psychology

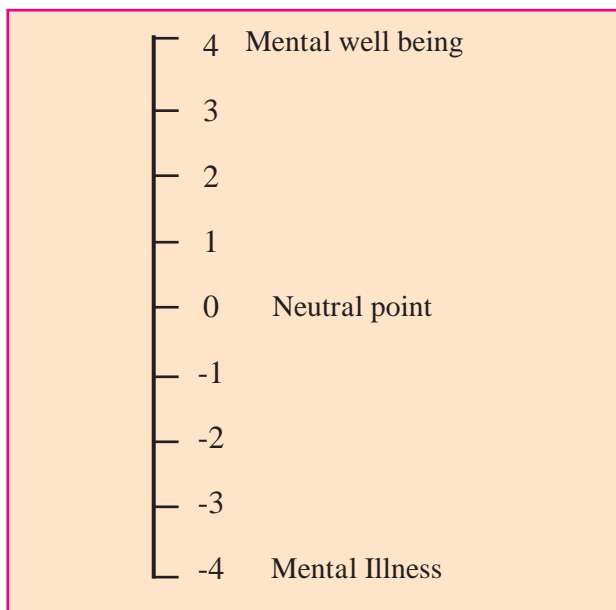
Ironically, research suggests that the greater weight and attention is given to the negatives in human behaviour compared to the positives. Negative events easily attract our attention because of their intensity. For example, we easily notice the anger of a person but his potentialities and intellectual abilities are ignored by us. Studies strongly suggest that one negative comment can undo many acts of kindness and one bad trait can undermine a person's reputation leading to a downfall. Positive psychology can help to increase awareness about it.

Positive psychology believes that a person can overcome many psychological problems by adopting a positive approach. Therefore positive

psychology is an important science in today's life.

### 8.3.1. Life Above Zero -

Positive psychology emphasizes study of life above zero. Here zero is the line that divides illness from health and unhappiness from happiness. Traditional psychology has focused on life at and below zero, that is, illness, pain and frustration. Life below zero indicates life which contains stress, problems in life, physical and mental diseases, unhealthy social relations etc. These factors negatively influence human life. The concept of life above zero is explained through the following continuum



In above diagram, the upper section indicates positive characteristics, In the lower section there are negative characteristics which are called characteristics below zero. Thus, there are positive deviations in the upper section and negative deviations in the lower section of the continuum. It also shows that what is near zero. i.e. -1 to +1 indicates neutral characteristics. According to DSM classification as we go down below zero, we see disorders and dysfunction. But major objective of positive psychology is to take human life above zero.

Life above zero covers a large area of positive aspects of human behaviour like happiness, optimism, hope, trust, character strength, compassion, empathy, mindfulness, resilience etc. these are the areas that positive psychology focuses on. We will study few of them in this chapter.

Before we start with the study of these areas it is essential to understand how this can be achieved. Barbara Fredrickson explains this in detail in her “Broaden and Build theory”.

### 8.3.2 Positive emotions – Broaden and Build theory

Tushar was having a very good day at college. He was very happy since his teacher had praised him. He went to the canteen but did not see any of his friends there. Instead of eating alone, he decided to introduce himself to a classmate he had not spoken to earlier and asked if they could eat together.

Here, rather than eating alone in a corner, Tushar decided to make a new friend. His behavior reflects the broadening aspect of the theory.

According to Barbara Fredrickson’s Broaden and Build theory of positive emotions, we can think of positive emotions as being a way to be open to positive things in our life. When we are happy or experience positive emotions, we tend to think more positive thoughts. This is reflected in our behaviours too. For example, being in a positive frame of mind, we want to be around people and socialise. Thus we have effectively increased or built our social and psychological resources. When we experience a positive emotion it leads to broadening (increasing) the number of actions we can think of performing. These actions help strengthen our psychological resources which improves our well being.

This is the way in which we can manage our emotions by trying to experience greater number of positive emotions, which will increase and strengthen our psychological and social resources. This enables us to lead a more fulfilling life.

We will study some of the positive emotions which may give us some insight to make our life enriching.

## 8.4 Happiness

We experience different types of emotions we prefer to experience some of them like happiness, love, respect etc, while we prefer to avoid some other like sadness, anger, hatred, fear, anxiety etc. These positive and negative types of emotions make our experiences meaningful and bring variety in the experiences. Without positive emotions our life will become very difficult.

- Amruta was extremely happy to know that she stood first in all divisions in annual examination.
- Milind became very happy when his father gave him the mobile which he always wanted to have.
- Students became very happy after a holiday was declared unexpectedly

In this way we experience happiness in different situations.

### Activity 1

Try to remember experiences which made you very happy. Can you give reasons that were responsible for your happiness?

### When do you feel happy?

From the above activity you may have realized that you become happy when you are successful, or when you feel secure or when you feel lucky.

### 8.4.1 Definition of happiness

Happiness is a positive emotional state that is subjective for each person. The definition makes it clear that there are subjective differences in experience of happiness e.g. some people are very happy when they get sweets and there are some who just hate sweets!

### 8.4.2 Theories of Happiness

Table 1 Showing the theories of happiness

Need/goal satisfaction theories	Process / activity theories	Genetic/ personality theories
<ul style="list-style-type: none"> <li>• We are happy because we have reached our goals eg. You are hungry and somebody offers you your favorite food.</li> </ul>	<ul style="list-style-type: none"> <li>• Engaging in particular activities generates happiness eg. Singer enjoys singing.</li> </ul>	<ul style="list-style-type: none"> <li>• Genes and personality characteristics are involved in the experience of happiness.</li> </ul>

### 8.4.3 Determinants of happiness

#### Activity 2

Based on your answers in Activity 1, what do you think which factors determine our happiness?

We might be tempted to believe that health, income, prestige (due to our job, place of residence, wealth etc.) are the most important factors for our happiness. But the research has shown that these factors add only a small portion of total happiness experienced by people in their entire lifetime.

On the contrary, other factors are better predictors of long lasting happiness. Some of them are as follows-

- a) **Strong and intimate social relationships** – Robust and intimate relationships within as well as outside the family help an individual to build better support system to rely on at the time of difficulties. It also produces greater positive contacts adding to overall happiness.
- b) **Optimism** – When a person is more hopeful about the future, he/she will experience more positive emotions thereby reducing negative emotions like stress and anxiety. We will learn about it in greater detail in the next section.
- c) **Self Esteem** – Having a positive evaluation of one's own self is positive self esteem. This enhances the confidence level of the individual and their ability to approach challenges more constructively. This results in greater incidences of being successful, thus adding to his happiness level.
- d) **Achieving challenging goals** – When a person adjusts the goal according to his capacities it becomes a challenging goal. Achieving such challenging goals leads to happiness. On the contrary if the goals are much higher than the capacity of the individual to reach, it leads to frustration and stress. Similarly if the goals are too easy to achieve it may lead to boredom. Thus the trick to maintain happiness level is to find out and achieve a goal which is neither too easy nor too difficult.
- e) **Perceiving meaning in life** – Research shows that an individual who does not experience meaning in life tends to experience more negative emotions like boredom, frustration, depression, loneliness etc. Therefore it is the responsibility of each individual to create a unique meaning and have a purpose in his own life to ensure happiness.
- f) **Perspective of looking at the world as an**

**opportunity rather than a threat** – Each individual can look at the challenges of life either as an opportunity to develop his potentials or as setbacks creating damage in his life. As we've seen earlier achieving challenging goals leads to happiness. That means our perspective of looking at the world matters for our level of happiness.

Thus it is important to remember that the way we look at and perceive the world is more important to determine our happiness than objective circumstances we experience.

### Activity 3

Based on what you have just learnt try to list the actions that you can adopt to enhance happiness in your life. Discuss with your classmates.

## 8.5 Optimism

### Activity 4

- a. Meera scored poor marks in the examination.
- b. Suresh's scholarship application got rejected
- c. Mahesh lost his job.

Imagine yourself in their position and answer the following questions –

- i. How does being in their situation make you feel?
- ii. What do you think about yourself and your future being in their position?

### A) You may feel

- 1) Hopeless and so you might think that your future is dark.
- 2) Helpless and so you might think that you cannot do anything to get out of the situation.
- 3) Worthless and so you might think that you are a failure.

### B) In contrast you may also feel

- 4) Hopeful and think that the current adverse situation can change in the future.
- 5) Challenged and think that you have the ability to overcome the adversity.
- 6) Confident and think that one failure does not define you.

Now compare the first three reactions (A- 1, 2, 3) with the last three (B- 4, 5, 6). What difference do you find? First three are indicators that the person is pessimistic while the last three are indicators of optimism.

### 8.5.1 Meaning of Optimism

Optimism is a mental attitude that includes feelings of hopefulness and a belief that the future will be positive, favourable and desirable and that negative events are temporary setbacks to be overcome.

The above definition reveals that there are two components of optimism – feeling and thinking. Optimism involves feelings like being hopeful, confident and positive about the future.

- It is seen that optimists tend to view the present adverse events as not stable (temporary). For example, Mahesh might think that, “I currently don’t have a job but I am confident that I will not be unemployed forever.”
- An optimist does not blame himself as solely being responsible for the negative outcome. For example, Mahesh does not think that he lost his job only because of his fault, he realizes that there can be multiple reasons for that.
- An optimist also does not generalize failure for the future events. For example, Meera does not think that failing in one exam indicates that she is going to be a total failure in her entire life.

The theory of optimism was given by Martin Seligman in his book called “Learned Optimism” and he is considered as the father of optimism. According to him optimism is all about the perspective that you may take about the glass which is half full. It may be considered as half full by an optimist or half empty by a pessimist.

### 8.5.2 Optimist versus Pessimist

Optimist	Pessimist
Choosing best options or result from the available conditions	Choosing the worst option or result from the available conditions
High self confidence	Lack of self confidence
Positive approach towards the challenges and difficulties	Negative approach towards the challenges and tries to flee from the challenges
Difficulties are seen as an opportunity for the person to become strong	Difficulties are seen as a curse to make the person weak
Hope about the future	Sees future as gloomy

### 8.6 Empathy

#### Activity 5

What would your feeling be in the following situations?

1. After a long struggle your friend got a job.
2. You see a person who just met with an accident and is bleeding profusely.
3. Your cousin is awarded a PhD. degree.

In all above situations perhaps you will experience the same feelings that the person in the examples are experiencing. If it is so, it is due to empathy.

### 8.6.1 Meaning of Empathy

Empathy is the capacity to understand and feel what another person is experiencing from within their frame of reference, that is the capacity to place oneself in another's position. Simon Baron- Cohen (2004) believes that empathy consists of three components:

- (1) **Cognitive empathy** : It means knowing how the other person feels and what they might be thinking. It is sometimes called perspective-taking. In the same way that a doctor can look at a sick patient and try to understand the parts of the illness rather than dive into the patient's emotions—cognitive empathy responds to a problem with brainpower.
- (2) **Emotional reactivity** : It means directly feeling the emotions that another person is feeling. It's a deep-seated, gut reaction that often feels like a visceral human response. Connecting with another human in this way is intimate and can form a strong bond.
- (3) **Social skills** : With this kind of empathy we not only understand a person's predicament and feel with them, but are spontaneously moved to help, if needed i.e. how easily individuals engage with others. It involves the other two components too as feeling the emotion becomes the driving force behind the action and understanding gives it the right direction. It involves using your emotional intelligence to correctly respond to the situation without either becoming overwhelmed by sadness or trying to fix things with logical or irrational motives.

In the above examples you will observe that you could demonstrate all these three factors in lesser or greater degrees.

Most research on empathy has revealed that practice of empathy builds trust and increases feeling of safety. It is also a key to successful relationships. It supports the social connections required for communication and shared activities. A world with empathy is nurturing and supportive – it creates an environment where people can be creative and take risks. These are some of the reasons why the study of empathy has gained momentum recently.

#### Do you know?

##### Neural foundations of empathy

The research on neurological foundations of empathy is relatively new. There are evidences of involvement of mirror neurons responsible for identical emotional reactions experienced by the observer or empathizer. Research also indicates that the broad range of brain areas spanning the sensory motor area, insula, and cingulate cortex may together form a neural network for empathy processing. Research has revealed that the people whose right somato-sensory cortices have been damaged no longer can judge other's emotions. These areas in brain play a major role in ability of person to empathize.

### 8.6.2 How can empathy be nurtured?

There are some methods which can help us to promote the empathy.

- 1) **Increase social interactions:** Simple method is to have a person interact more frequently with people who need help. With such frequent contacts the individual truly begins to understand the perspectives and motives of the people who are being helped.

- 2) **Connecting through similarities:** point out similarities with another person e.g same type of work, having same type of problem or goals, growing up in the same part of country, etc. This may lead to realize that we all are the part of the same world. For example, many well settled American Indians help newly arrived Indians in America.
- 3) **Ask yourself what you are feeling:** The first step towards understanding others is understanding yourself. Research shows that people who are more accurate in judging their own motives and emotions are able to empathize better.
- 4) **Challenge yourself:** When you undertake something which is quite challenging and you have to struggle hard to achieve goal, you are more likely to be humble and humility is a key enabler of empathy.
- 5) **Cultivate your sense of curiosity:** Try replacing the habit of judging by the new habit of curiosity. You tend to ask more frequently when curious, leading you to open up and develop stronger understanding of people around you.
- 6) **Widen your circle:** Empathy, especially for strangers, starts with exposure to people who are different than us. Research has found that contact with people of different races increases our empathy toward them at a neurological level.

#### Activity 6

Spend time with visually impaired people and try to see the world through their eyes.

## 8.7 Mindfulness :

### Activity 7

Imagine that-

1. You are attending a lecture but at the end of it you can't really remember what was taught.
2. You are performing a familiar or repetitive task, for example traveling to college you've reached your destination but can't recall the route you took or the things you saw along the way.

If you have experienced this, have you wondered why this happens? You might have noticed that there were a number of thoughts going through your mind. Maybe you were worrying about some upcoming event, daydreaming or thinking about many other things. Whatever may be the reason for not paying attention, it may be said that you were performing the task in a 'mindless' manner. Not paying attention while performing a task can get you in trouble.

On the other hand, imagine in the examples from the above activity you were fully present and paying attention while performing the task. Do you think your behavior, thoughts and feelings might have been different?

### 8.7.1 Meaning of mindfulness

This highlights the significance of an important positive aspect of human behaviour known as Mindfulness. Mindfulness refers to a state of awareness. It is a type of mental alertness and plays an important role in increasing the accuracy of performing any task. It is a significant concept related to the attention process.

Mindfulness is the basic human ability to be fully present, aware of where we are and what we're doing, and not overly reactive or overwhelmed by what's going on around us.

Mindfulness helps to focus on the 'Here and Now'. It means living in the present and being fully engaged in the task that you are performing rather than ruminating about the past, or entertaining anxieties and wishful thinking about the future. Mindfulness is maintaining moment by moment awareness of our thoughts, feelings, bodily sensation and surrounding environment. Self-regulation and self control of our behaviour increases due to mindfulness. This results in growth and happiness.

Mindlessness is the opposite of mindfulness mentioned earlier. Mindlessness means performing a task with less concentration and little awareness of what is going on in the present moment. All of us are familiar with mindless states. For example many times we read a book or talk with another person but our mind is absorbed in our own thoughts, emotions, worries, etc. Then we realize that we can't remember what we read in the book or what was said by the other person.

### Do you know?

Mindlessness plays a role in making us victims of our own unconscious habits. For example, you might find yourself checking social media or playing on your phone multiple times in a day without realizing it or eating even when you are not hungry. These could be undesirable habits that are automatically triggered by some internal or external cues such as boredom, stress etc., and are difficult to break. Mindfulness can help break such unhelpful behaviours. When you are mindful, you are aware of when and why you are performing behaviours. Awareness of our actions make it easier to control the habit. This will in turn help increase our mental and psychological well being.

Mindfulness becomes particularly important in situations where mindlessness can become dangerous for example while driving the car.

### 8.7.2 Mindfulness Meditation:

Mindfulness meditation is a significant concept related to mindfulness. In Buddhist philosophy, mindfulness practice is a form of meditation which has a long tradition. Life's problem can be seen more clearly through a clear mind. Meditation is one of the ways in which mindfulness can be increased.

The basic idea of mindfulness meditation begins with awareness that most of our working consciousness is dominated by a steady stream of unexamined thoughts and feelings. The constant mental chatter of one's thoughts consumes our mental energy. It may distract us from what is actually taking place in the moment. Hence even though we live in the present, our mind frequently drifts off into the past or is anxious about the future.

Mindfulness meditation involves opening up or becoming more alert to the continuous passing stream of thoughts, images, emotions and sensations without identifying oneself with them. Such practice helps in developing a non-reactive state of mind, which is the foundation of a calm and peaceful state of mind. Here the person becomes alert to the entire field of consciousness.

In mindfulness meditation you sit in a comfortable position with eyes closed. Maintain your focus on your breath. If the thoughts try to pull your attention, simply notice them without passing any judgment about it. Do not get obsessed over the content of the thoughts or do not go along with it. Do not even struggle to stop them. Rather gently return your focus on the breath again. Practising such mindfulness meditation daily helps to reduce anxiety, stress, and frustration and enhances mental well being and happiness.

## 8.8 Resilience

### Activity 8

Think of someone you know who has faced a challenging situation in their life and were successfully able to deal with it. This situation may have been emotionally difficult to deal with like death of a loved one, loss of a job, dealing with chronic illness, failure etc. Answer the following questions and discuss the answers in class

- How did they handle the adverse situation?
- Which obstacles did they have to overcome?
- In your opinion which specific attitudes and skills helped them cope with the situation?
- Do you think they received help and support from others?

Based on the activity you might have realized that there are people around you who have been able to successfully overcome hardships to lead a fulfilling and productive life.

### 8.8.1 Meaning of Resilience

The ability to recover from adversity is not a superhuman or rare ability. It is something that many people are capable of doing. Resilience is the act of “bouncing back” or resisting cracking under pressure. According to the American Psychological Association, resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress — such as family and relationship problems, serious health problems or workplace and financial stressors. (<https://www.apa.org/helpcenter/road-resilience>)

When people are faced with an adverse condition, there are three ways in which they may approach the situation.

- 1) They may react with anger and consider themselves as victims.

- 2) They may collapse and get overwhelmed by negative emotions like fear, anxiety, distress etc. This may weaken their resilience and also increases their vulnerability to physical and psychological diseases.
- 3) They may simply become upset about the disruptive change. Rather than just waiting for things to happen, they actively try to make their goals a reality. Instead of falling into despair or hiding from problems with unhealthy coping strategies, they face life's difficulties head-on. This does not mean that they see life through rose-colored lenses and experience less distress, grief, or anxiety than other people do. It means that they handle such difficulties in ways that foster strength and growth. They understand that setbacks happen and that sometimes life is hard and painful. They still experience the emotional pain, grief, and sense of loss that comes after a tragedy, but their mental outlook allows them to work through such feelings and recover. In many cases, they may emerge even stronger than they were before. They are Resilient individuals.

### 8.8.2 Importance of Resilience

Resilience helps us recover from setbacks and move ahead with our life. Some people who are low on resilience tend to get overwhelmed by the challenges and experience emotional distress. It is seen that in such times they do not feel confident about their abilities and might feel bitter, angry or anxious with life. On the other hand individuals high in resilience after a period of disturbance are able to recover and regain their confidence to move forward in life. It is also linked to maintaining psychological well being and positive emotions.

What makes some more resilient than the others? Let us try to understand this.

### 8.8.3 The 7 C's of Resilience:

Resilience is not a trait that people either have or do not have. Ann Masten calls it 'Ordinary Magic' indicating that it is quiet common across the life span. It involves behaviors and thoughts that can be learned and developed by anyone. There are 7 essential building blocks for resilience they are as follows -

CRUCIAL C'S	DEFINITION
Competence	Competence is the ability or know-how to handle situations effectively. Competence is acquired through actual experience.
Confidence	True confidence is a strong belief in one's own abilities. Confidence is gained by demonstrating competence in real life situations.
Connection	Family is the central force in an individual's life. Connections with other people, schools and communities gives the individual a sense of security that allows him to be independent and develop creative solutions.
Character	Clear sense of right and wrong and a commitment to integrity. An individual with character has a strong sense of self-worth and confidence.
Contribution	An individuals who understands the importance of personal contribution develops a sense of purpose that can motivate him / her, further leading to his / her psychological well-being.

Coping	A person who learns to cope effectively with stress is better prepared to overcome life's challenges
Control	When an individual realizes that he can control the outcomes of his decisions and actions, he is more likely to know that he has the ability to bounce back.

#### Activity 9

Read about the life of Indian boxer Mary Kom. Discuss in class the struggles she faced and how she overcame them to win multiple medals for the country.

### 8.8.4 Types of Resilience:

There are Four types of resilience, they are, Psychological, Emotional, Physical, and Community.

- 1. Psychological Resilience:** Psychological resilience refers to the ability to mentally withstand or adapt to uncertainty, challenges, and adversity. People who show psychological resilience develop coping strategies and capabilities that enable them to remain calm and focused during stressful situations and move on without prolonged negative consequences.
- 2. Emotional Resilience:** Emotional resilience refers to the ability to cope emotionally with stress and adversity. It is a person's ability to understand what he / she is feeling and why? Managing their emotions by using internal and external resources rationally.

**3. Physical Resilience:** It is the body's ability to adapt to challenges, maintain the stamina and strength, and recover quickly and efficiently. It's a person's ability to function and recover when faced with illness, accidents, or other physical demands.

**4. Community Resilience:** Community resilience refers to the ability of groups of people to respond to and recover from adverse situations, such as natural disasters, acts of violence, economic hardship, and other challenges to their community.

### Summary

- Positive psychology is a newly emerging branch of psychology.
- It pays more attention to positive aspects rather than negative aspects of human behaviour.
- Positive emotions strengthen our psychological resources which increases our well being.
- Factors such as income, prestige have a small influence in our level of happiness. Factors such as social support, optimism, finding meaning in life, self esteem and achieving goals are more

influential.

- Optimism helps to reduce our tensions and increases our confidence.
- Empathy is the capacity to understand or feel what another is experiencing, which improves inter personal relationship.
- To increase accuracy of any task mindfulness is very essential.
- Dealing with trauma and setbacks becomes easy because of resilience.

### Important Concepts

- Positive psychology
- Life above zero
- Broaden & Build theory
- Happiness

- Optimism and pessimism
- Empathy
- Mindfulness
- Resilience

## Important Psychologists

- **Martin Seligman:** American psychologist, officially introduced Positive Psychology as a subfield. He is considered to be the father of

optimism.

- **Barbara Fredrickson:** American psychologist, developed the

## Exercises

Broaden and Build theory.

**Q. 1) Complete the following statements by selecting the appropriate words given in the bracket:**

- 1) ..... is the father of positive psychology.  
a. Carver                      b. Masten  
c. Seligman
- 2) Barbara Fredrickson introduced the Broaden and ..... theory.  
a. build                      b. emotion  
c. learning
- 3) The belief that good things will happen is called as .....  
a. pessimism              b. resilience  
c. optimism
- 4) The capacity to understand what the other person is experiencing is .....  
a. sympathy              b. empathy  
c. emotion

**Q. 2) Match the pairs.**

Group A

Group B

- |                        |                             |
|------------------------|-----------------------------|
| a) Resilience          | 1) Positive aspects of life |
| b) Mindfulness         | 2) increase optimism        |
| c) Positive psychology | 3) state of awareness       |

- d) Happiness              4) Overcome hurdles

**Q. 3) Answer the following questions in 35 to 40 words:**

- 1) Explain the theories of happiness?
- 2) What is mindfulness?
- 3) What is resilience?

**Q.4) Write short notes on the following topic in 50 to 60 words :**

- 1) Life above zero
- 2) Determinants of happiness
- 3) Characteristics of an optimist
- 4) Methods to promote empathy

**Q. 5) Explain the following concepts:**

- 1) Positive psychology
- 2) Half glass full and half glass empty
- 3) Empathy
- 4) Mindfulness
- 5) Social resilience

**Q. 6) Answer the following question in 150 to 200 words:**

- 1) What are the essential building blocks of resilience?
- 2) Recollect the most challenging

situation you faced in your life till now and the way you dealt with it. With reference to the 7 C's of Resilience, which qualities helped you to overcome the challenge? For each of the C's write the process you adopted to deal with the situation.

**Q. 7) Find out the positive aspects of behaviour from the example given below and answer in one word.**

- i) Mahesh studies so attentively that he never gets distracted.
- ii) Sujata lost her hands in an accident. Now she has learned to write with her leg.
- iii) Vasanta's daughter died by cancer. He has opened a rehabilitation center for cancer patients.

**Q 8) Case Study**

Anurag was a software engineer working in one of the leading company's

in the USA for almost 5 years. He was in a stable relationship and he had plans to start a family and to settle there. Unfortunately due to the poor economy in USA he lost his job and had to return back to India. He felt distressed as he realized that he had lost everything he had worked so hard to build. This made him feel like a failure.

- i) How do you think Anurag can apply the 7 C's of resilience to overcome the difficult situation he is in?
- ii) As Anurag's friend how will you empathise with him and help him deal with this challenge?
- iii) Anurag has developed a very pessimistic approach after these setbacks, how will you guide him to stay happy and optimistic?



## Glossary

- **Anger** – A basic emotion expressing dislike or displeasure.
- **Anxiety** - A state in which an individual experiences feelings of uneasiness and worry and tends to anticipate that there will be danger or failure in the future.
- **Artificial Intelligence** – A subfield of computer science enabling software programs to run machines just like human intelligence.
- **Attention** – Sustained concentration on specific stimulus
- **Cardinal traits** - In Allport's theory of personality it refers to a trait that is so powerful and pervasive that almost every act of the individual is influenced by and can be traced back to it.
- **Central traits** - In Allport's theory of personality it refers to relatively general characteristics of an individual that apply to most circumstances.
- **Concept** – A mental representation or idea that represents a category.
- **Conscientiousness** – One of the personality factors in the Big Five Factor Model characterised by the tendency to be responsible, organised, and hardworking.
- **Correlation Coefficient** – A number which denotes the magnitude and direction of the relationship between two variables, it ranges between -1.00 to + 1.00.
- **Delusion** - A false belief that is strongly held by an individual even in the presence of contradictory evidence.
- **Dependent Variable** – The variable being studied in an experiment it may change due to manipulations of the independent variable.
- **Depression** - A state of experiencing sadness, pessimism, loss of interest in activities that previously were enjoyable along with physical, cognitive and behavioural changes.
- **Distress** - A negative emotional state indicating worry.
- **DSM-5** - The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders-5 was published by the American Psychiatric Association in 2013; it is a widely used manual on the definition and classification of mental disorders.
- **Dysfunction** - Any impairment or disturbance leading to abnormality in behaviours or functioning.
- **Emotional abuse** - It is a non physical form of abuse in which an individual purposely subjects another to behaviours such as intimidation, isolation, humiliation, rejection and verbal abuse.
- **Emotional Intelligence** - An individual's ability to perceive, assess, evaluate and regulate one's own and other's emotions accurately.
- **Emotional well being** - It is an overall positive state of one's emotions.
- **Emotions** - A complex response pattern which involves physiological arousal, expression of behaviours and conscious experience.
- **Empathy** - it is the ability to understand and share the similar feelings of another.
- **Extrovert** – An individual who is social, outgoing and openly expressive prefers social interactions.

- **Hallucination** - It is a false perception that occurs in the absence of a stimuli.
- **Happiness** - An emotional state showing feelings of joy, gladness, satisfaction and well being.
- **Heredity** - It is the genetic material that partially determines individual characteristics and is transmitted from one's parents to their children (offspring).
- **Hypothesis** - A tentative explanation that can be tested to determine if it is true.
- **ICD- 11** – The International Classification of Diseases and Related Health Problems issued by the World Health Organisation (WHO) consisting of a manual on the definition and classification of mental disorders.
- **Independent Variable** – In an experiment the variable that is systematically changed or manipulated by the experimenter in order to study its effect on the dependent variable.
- **Intelligence Quotient** – The standard score of an individual's intelligence based on an intelligence test. It is also known as IQ.
- **Interview** – An assessment tool for data collection involving face to face communication that can be used for diagnosis and in research.
- **Introvert** – An individual who is reserved, quiet and prefers working independently.
- **Learning** - The ability to acquire knowledge or skills, or any relatively permanent changes in one's behaviour as a result of experience or practice.
- **Life above zero** - It is an element of positive psychology that involves adopting mindful responses to various experiences in life to raise our mental well-being and make life enriching and meaningful.
- **Mental age** – Is a measure of a child's performance on an intelligence test and relative to the performance of other children of the same age on the same test.
- **Mental Health** – It is a state of mind that is characterised by emotional well-being, good adjustment and ability to cope with the demands and stresses of daily living.
- **Mental Representation** - An internal representation of information.
- **Mental wellbeing** - It is a feeling of wellness in which an individual realises his or her own potential ,can cope with stressful situations and can make productive contributions to the society to live a meaningful life.
- **Mindfulness** - It is a state of being conscious and fully aware of the present moment.
- **Neuroticism** - One of the personality factors in the Big Five Factor Model characterised by the tendency to experience negative emotions such as nervousness, tension and worry.
- **Optimism** - It is a positive mental attitude that is characterised by hopefulness and a belief that good things will happen in the future.
- **Participant** - In a research study the individual who voluntarily participates and whose behaviour is being studied. Also called a subject or experimental participant.

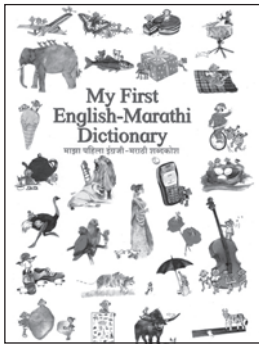
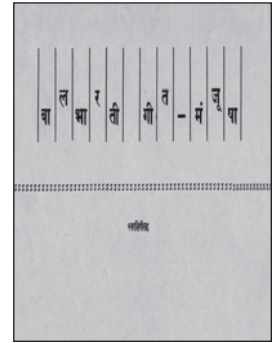
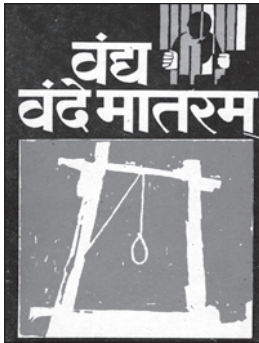
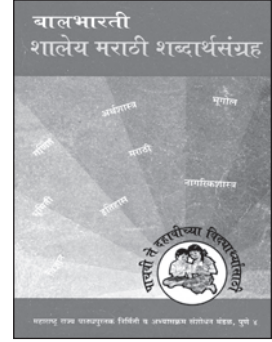
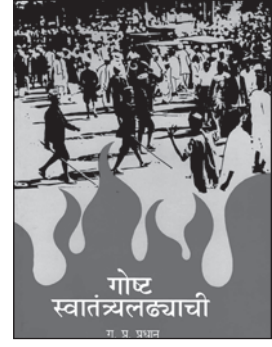
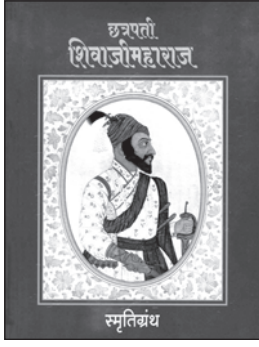
- **Perception** - The process by which we recognise, organise and interpret of sensory information.
- **Performance tests** – Any test that requires the individual to perform or do something such as completing a task or manipulating objects rather than respond using language.
- **Pessimism** - It is a negative mental attitude that is characterised by hopelessness and an anticipation that negative events are more likely to happen.
- **Positive psychology** - This is a branch of psychology that focuses on strengths and virtues that enable individuals, communities and organisations to thrive.
- **Procrastination** - Is the avoidance of completing a task that needs to be completed.
- **Projective methods** – They are techniques which use vague or ambiguous stimuli which allow the individual to reveal their personality through their unique responses.
- **Questionnaire** – An instrument typically used in a research study that consists of a series of questions that is used to collect information from the participants.
- **Rating Scale** – An instrument in which a respondent gives a numeric value (i.e. rates) to an object or stimulus.
- **Replicability** – It is the possibility to replicate a research or its findings in order to test its validity.
- **Resilience** - This is the process of successfully adapting to challenges and difficulties in life.
- **Schema** - An organised framework of knowledge based on past experiences and memory and helps in perception and interpretation of new information in terms of existing knowledge.
- **Sleep hygiene** - Techniques and routines that can be followed to improve sleep patterns.
- **Social Intelligence** – An individual's ability to effectively relate to others.
- **Social phobia** - An anxiety disorder in which the individual experiences high levels of distress in social situations preventing them or causing them to avoid participating in social situations.
- **Stigma** - A negative social attitude which is associated with individuals diagnosed with a mental disorder and often leads to social disapproval, discrimination and exclusion of that individual in society.
- **Syndrome** - A set of symptoms that tend to occur together and can be associated with a particular physical or mental disorder.
- **Thinking** – It is a cognitive process which involves mental representation and manipulation of information.
- **Trait approach** – According to this perspective every individual possess specific characteristics and patterns of behaviour that shape personality.
- **Trigger** - An event or stimuli that causes a reaction.
- **Type approach** - According to this perspective individuals are classified into groups based on certain characteristics which shape personality.



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