

ગુજરાત રાજ્યના શિક્ષણવિભાગના પત્ર-ક્રમાંક
મશબ/1215/175/છ, તા.25-11-2016 -થી મંજૂર

PSYCHOLOGY

Standard 12



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

I pledge my devotion to my country and its people.
My happiness lies in their well-being and prosperity.

Price : ₹ 36.00



Gujarat State Board of School Textbooks
'Vidyayan', Sector 10-A, Gandhinagar-382010

© Gujarat State Board of School Textbooks, Gandhinagar
 Copyright of this book is reserved by Gujarat State Board of School Textbooks.
 No reproduction of this book in whole or in part, in any form is permitted without
 written permission of the Director, Gujarat State Board of School Textbooks.

Subject Adviser

Prof. C. B. Dave

Authors

Dr. Dineshbhai Panchal (Convener)

Dr. Trushaben Desai

Dr. B. D. Dhila

Dr. Rudreshbhai Vyas

Dr. Navin Patel

Dr. Aarti Oza

Dr. Jigneshbhai Prashnani

Smt. Chetana Joshi

Translators

Mrs. Hetal A. Patel

Mrs. Minal M. Dwivedi

Reviewers

Dr. Pallavee Trivedi

Mrs. Jyoti P. Sisodia

Mrs. Jennifer Emmanuel

Ms. Jasbirkaur Thadhani

Co-ordinator

Dr. Krishna Dave

(Subject Co-ordinator : English)

Preparation and Planning

Dr. Kamlesh N. Parmar

(Dy. Director : Academic)

Printing and Planning

Shri Haresh S. Limbachiya

(Dy. Director : Production)

PREFACE

The Gujarat State Board of School Textbooks has prepared new textbooks as per the new curricula developed by the Gujarat Secondary and Higher Secondary Board and which has been sanctioned by the Education Department of the Government of Gujarat. A panel of experts from Universities/ Colleges, Teachers Training Colleges and Schools have put lot's of efforts in preparing the manuscript of the subject. It is then reviewed by another panel of experts to suggest changes and filter out the mistakes, if any. The suggestions of the reviewers are considered thoroughly and necessary changes are made in the manuscript. Thus, the Textbook Board takes sufficient care in preparing an error free manuscript. The Board is vigilant even while printing the textbooks.

The board expresses the pleasure to publish the Textbook of **Psychology** for **Std. 12** which is a translated version of Gujarati. The board is thankful to all those who have helped us in preparing this textbook. However, we welcome suggestions to enhance the quality of the textbook.

H. N. Chavda

Director

Date. 09-02-2017

Dr. Nitin Pethani

Executive President

Gandhinagar

First Edition: 2017

Published by: H. N. Chavda, Director, on behalf of Gujarat State Board of School Textbooks, Vidyayan,
 Sector 10-A, Gandhinagar

Printed by:

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 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) to provide opportunities for education by the parent, the guardian, to his child, or a ward between the age of 6-14 years as the case may be.

*Constitution of India : Section 51-A

INDEX

1. Sensation, Attention and Perception	1
2. Learning Skills	15
3. Intelligence	27
4. Attitude and Prejudice	44
5. Stress and Health	58
6. Mental Disorders	75
7. Counselling and Psychology	95
8. Environment and Behaviour	105
9. Organizational Psychology	117
10. Positive Psychology	128



1

Sensation, Attention and Perception

As per the study of Psychology in std-XI, we have seen that human behaviour enjoys a central place in study of Psychology. There are many factors that affect human behaviour. Out of the many the most-important factor is the body system, its composition, activities, sensations experienced by the human body and in-depth understanding of an individual affects the human behaviour.

Humans gather information about their surrounding external world through the sensory organs. There are various stimuli in the external environment but human being select some liked stimuli and gives complete mental concentration towards it. Human being with their former experiences and education can have in-depth understanding of the stimulus and then behave accordingly. In Psychology, this process of human behaviour is known in a particular sequence as sensation, attention and perception.

In this chapter we are going to study sensation and its types, Meaning of Attention – Nature and Characteristics, Determinants of Attention, Meaning of Perception, Process, Laws of Perceptual Organization and Perception of Depth and Distance.

Sensation :

“An experience regarding a Stimulus through the Sensory organs”. Any type of external stimuli affects sense organs and afferent nerves near the sense organs are excited and this excitation reaches a specific area of the brain.

Meaning and Definition : Sensation means "An experience arising out of this is called Sensation. Thus sensation is a change in consciousness that arise out of excitation which reaches the sensory centers in the brain.

Physiologists and Psychologists have divided sensation into three classes and they are as follows:

(I) External receptors: The external physical environment is constantly humming with changes in stimulus like light, sound, heat, cold, touch, pressure, chemical air, chemical liquid etc. which affect our different sense organs and hence we can experience different types of sensations.

(II) Body receptors: Just like the external environmental components, the human body's internal physiological system is responsible for different sensations. e.g., excitation of the rods and cones for visual sensation excitation of microscopic hair calls for auditory sensation etc.

(III) Internal receptors: Internal sensations arise because of changes and movements in the organs within the body and in the internal physiological system. e.g., hunger (in stomach), thirst because of dryness in throat, suffocation, (in lungs), change in blood circulation etc.

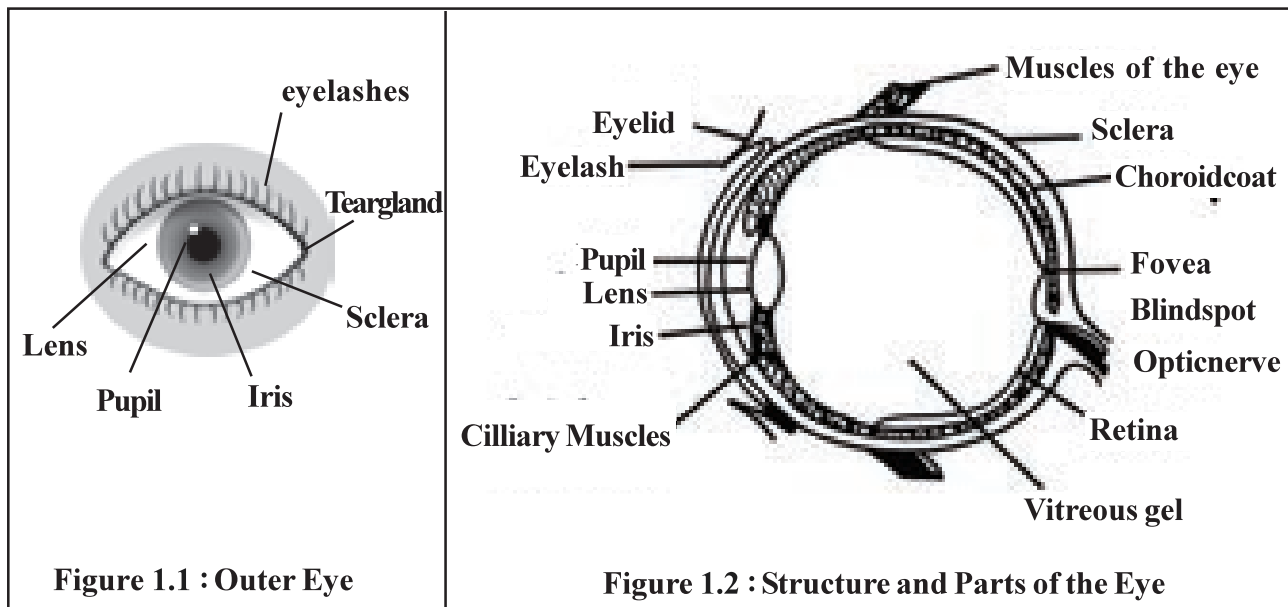
It is observed that different animal species differ in their capacity for different kinds of sensitivity. In the same way, we can observe the differences in sensitivity between different human beings. By special training and experience human beings can not only develop but also increase their sensitivity.

2. Types of Sensations :

There are five types of sensations based on five sensory organs. They are as follows :

- (I) Visual Sensation
- (II) Auditory Sensation
- (III) Olfactory Sensation
- (IV) Gustatory Sensation (Taste)
- (V) Touch Sensation (Skin)

(I) Visual Sensation : Out of all senses vision has the most important role in human life. Composition of the eye, its internal organs, the nerves that go towards the brain and the brain are all included in the process of visual sensation. To experience visual sensation presence of light is inevitable and is must.



As per Figure 1.1 the external eye can be seen only when we stand in front of the mirror or when we look at someone else's eye. The white part of the eye is a tough outer layer called Sclera. It is made of white fibres, not transparent and hence can protect the inside of the eye. The black part of the eye called pupil is transparent and it is through it the light- enters the eye and reaches the retina. The grey or blue area which can be seen in the Sclera is called Iris and also the ciliary muscles of the eye. It is because of it that the colour of the eyes can be seen. These ciliary muscles are not interconnected and they do not touch each other. The space between them is called the pupil. The pupil is not any organ but 1/8 inch hole located in the centre of the Iris.

Figure 1.2 shows the physiological and internal structure of the eye. Rays of light emanating from external object enter the eye through the pupil then its reaches the retina by passing through the transparent vitreous humor in the space within the eye which is the area for visual sensation and so because of it one can experience visual sensation, (i.e. can see the object). How much intensity of light will reach the retina will depend on the contraction and expansion of the ciliary muscles. They are very sensitive to the intensity of light rays. When light increases the ciliary muscles get expanded and the size of the pupil becomes small and if light decrease, than the size of the pupil increases. To experience the sensation of near and far objects, retina and ciliary muscles play an important role in visual sensation.

(II) Auditory Sensation

To be connected with the outer world, an individual should possess adequate auditory sense organ. To understand the direction of sound, its distance and to be able to differentiate between sound waves it is necessary to possess a sharp and active auditory sensation.

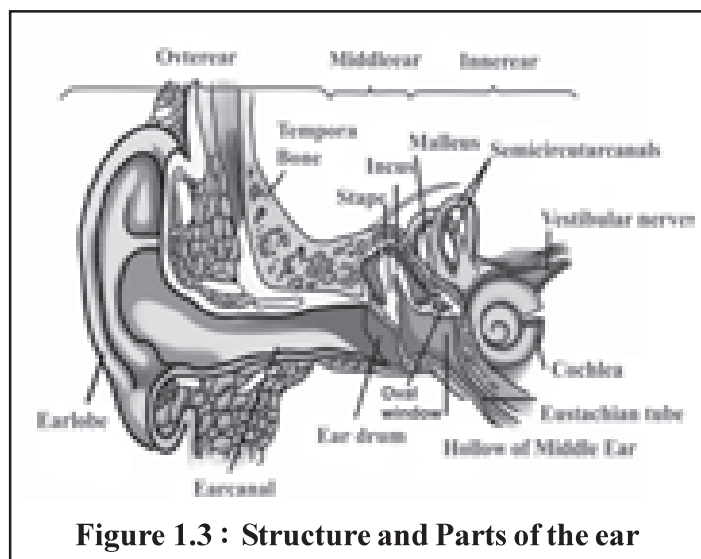


Figure 1.3 : Structure and Parts of the ear

Normally a man's ear is capable to hear and distinguish sound waves from 20 to 20,000 Hz i.c CPS (cycle per second). Sound waves which are more than 20,000 or less than 20 cannot be heard by the human ear.

To understand auditory sensation in details it is divided into three classes :

(a) **Outer ear** : This includes the ear lobe, auditory canal and the ear drum.

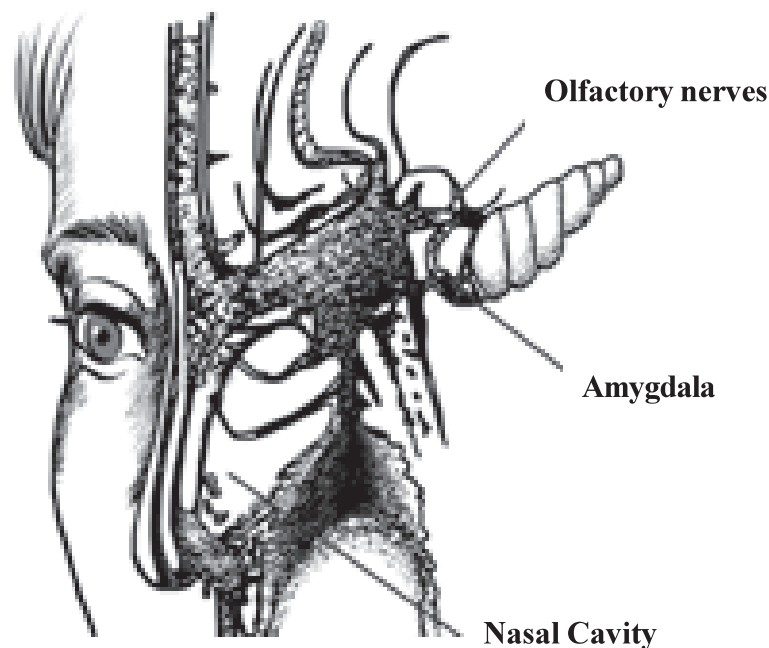
(b) **Middle ear** : The Middle ear is made up of three interconnected bones like hammer, anvil and stirrup. It has also got the Eustachian tube , its second part opens in the throat.

(c) **Inner ear** : It is divided into three main parts : (1) Middle ear (2) Cochlea (3) Semicircular canals

Sound waves from the environment enter through the outer ear into the external auditory canal and in middle ear stimulates the ear drum. Eardrum vibrates with the sound waves and activates the three bones. Vibration of these three bones transmits the concentrated energy to cochlea and sets the fluid inside the cochlea into a wave motion. The fluid waves causes the basilar membrane to move bending its tiny hair cells, the auditory receptors. Neural impulses through the auditory nerve reach the auditory area in the brain and so there is sensation of hearing.

(III) Olfactory Sensation: Physical stimuli for smell are molecules of chemical compounds dissolved in air and this smell reaches the olfactory receptors in the nose. Smell receptors are olfactory cilia, hair like structures located in upper portion in a narrow canal of the nasal passage. Olfactory receptors through olfactory nerves are connected with the base of the brain. Each such cell type responds to different kinds of smell and it can be said that olfactory sensation takes place.

There are individual differences in olfactory sensitivity. A strong smell emanating from chemical compounds may arise a sensation in one individual whereas the some smell may not arise any sensation in another individual. Sense of smell shows sensory adaptation because when there is continuous experience of a particular smell, the intensity of this sensory experience decreases and the person gets habituated to it.



Figures: 1.4 Structure and Parts of the Nose

Henning distinguished six types of smell : Spicy, Fragrant, Etherial, Resinous, Putrid and Burnt.

When suffering from cold, a person's olfactory threshold rises, so mild smells are not felt by him. Sense of smell is important in our likes and dislikes for people, choice of food and sexual attractions.

(IV) Gustatory Sensation: Physical stimuli of Taste are chemical substances from the external environment which create taste sensation through the tongue. Tongue is involved not only in taste sensation but it is also important in development of speech. It is a muscular organ and attached to the end of the jaw. Taste buds are spread over the entire surface of the tongue gave and they arouse the experience of taste. They are also called taste receptors.

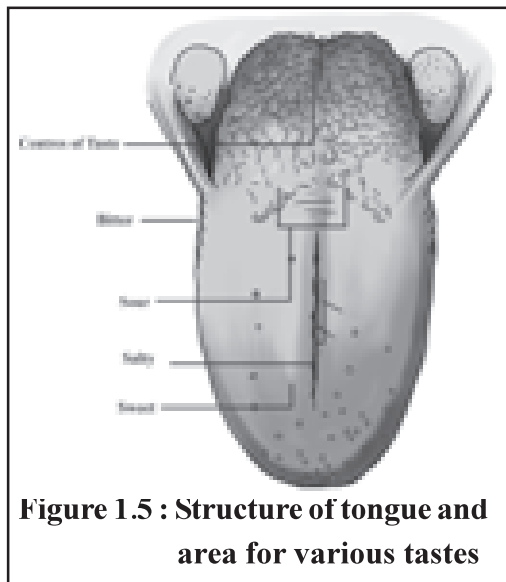


Figure 1.5 : Structure of tongue and area for various tastes

At its base every taste bud is connected with the ends of taste receptors. A substance, which can melt in saliva if put over the tongue, it stimulates taste buds. Its neural stimulation reaches the brain and arouses the experience of taste. There are different areas on the tongue for experiencing different kinds of tastes. Each basic taste has a specific kind of taste buds. Which are divided into four types. Sweet taste buds are on the tip of the tongue, Salty taste buds are on both side of the tongue just behind the tip, further ahead on both sides is sour and buds for bitter taste are located on the back part of the tongue. There are no taste buds on the middle surface of the tongue. As per Ayurvedic view, there are four basic tastes i.e. sweet, salty, sour and bitter but in addition to it there is spicy and astringent which makes it total six types of tastes.

(V)Touch Sensation :We can experience touch sensation because of the layer of skin on the entire human body and they are of four types. They include warmth, cold, touch, pressure, pain etc. As per different studies and experiments performed in psychological laboratories it is found that touch sensation is experienced due to excitation of sensory receptors spread all over the skin of the human body. We can experience touch sensation on the face when the skin of the face is stimulated by touch and it sends message to the brain in the same way sensations from shoulder to waist are send through excited skin

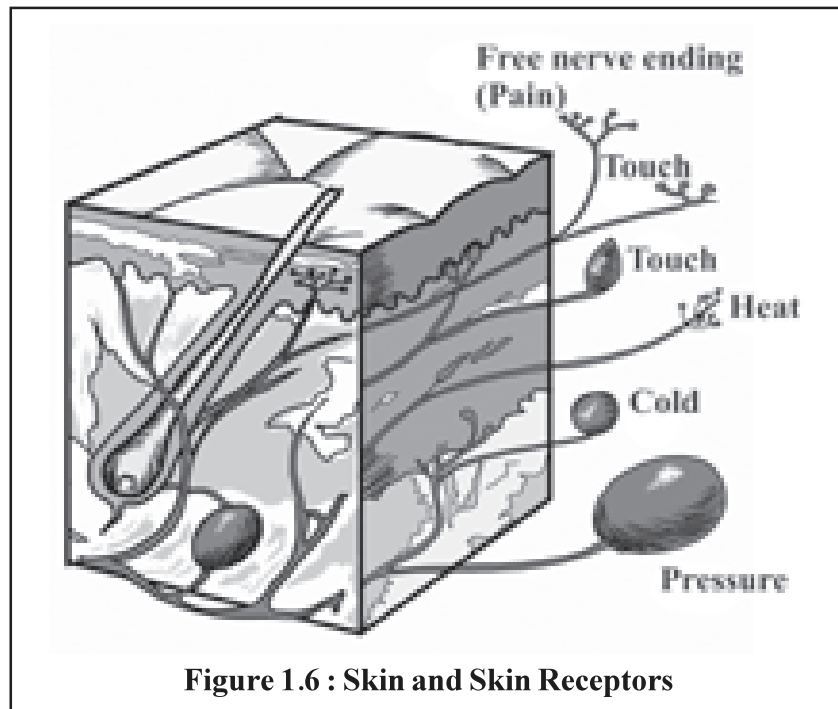


Figure 1.6 : Skin and Skin Receptors

receptors via spinal cord to the lateral part of the brain which is the center point of touch sensation and hence we can experience touch sensation. Most of our sensory experiences from the skin are of mixed type because skin stimulus activates more than one type of receptors. e.g., we can experience the sensation of coolness and touch both simultaneously when a drop of rain water falls on the body.

Attention :

1. Meaning and definition of attention

The surrounding world abounds in several kinds of stimuli but at a given time only a few of them can enter the brain via sense. Mind is directed or concentrated on a very few stimuli out of a large hoard of them. This process is called attention. Attention involves physical, bodily and mental adjustment. Attention means single-mindedness or concentration. There cannot be sensation without attention and its a precondition for

sensation to take place. e.g., we can hear the horn of the vehicles of people living in our society but we can immediately recognise the sound and horn of the vehicles of our own family member though we may be inside the house. A few definitions of attention in relation to Psychology are as follows.

“Attention is a process of selection of a definite stimulus and concentrate on it” *H. E. Garrett*

“Attention is mental concentration on selected stimuli” *- James Drever*

From the above definitions we can infer that concentrate on a selected stimuli means attention.

2. Nature and characteristics of Attention

On the basis of the above definitions we can understand the nature and characteristics of attention. The following are the characteristics of attention.

(I) Attention is selective: It is said that attention is selective, voluntary and intuitive process. At any point of time there can be many stimuli. People or objects in the focus of attention but an individual cannot attend to all. Out of the many stimulus in the environment he/she selects a few of them and attends to it whereas disregards the others. In attention the person selects the stimulus. e.g., while watching a film a person gets attracted towards those things in which he/she is interested. Women viewers – towards the heroine, her clothes, looks and men viewers-towards the hero, his behaviour, clothes whereas children will focus on games and play things.

(II) Attention is adjustive: There is physical bodily and mental adjustment in attention and so it helps the weak stimuli to enter the focus of attention. For the process of attention to take place the different parts of the body, muscles, sensory organs etc. make adjustment with each other which is called Psychophysical adjustment. e.g., while looking at objects which are at a distance we contract our eyes or make them small, cover our eyes with hands when there is too much light. Hence we make physical and mental adjustment with our external environment so that we can see properly.

(III) Attention is explorative: Attention is purposive. Any stimulus is examined keenly observed, explored, manipulated and then focused on. e.g., when one goes to buy a saree in the shop and if it is liked than we will keenly observe the design, colour and other aspects by focusing our attention to it. Hence when any stimuli attract our attention we completely explore and observe it in detail.

(IV) Attention is futuristic: We attend to objects or stimuli which are present before us. But our insight is always futuristic because while attending something keenly, there is always an element of expectation that what would happen next. e.g., when an individual buys a house he is not only aware of the price he is paying in comparison to the surrounding area but also thinks about future infrastructure development and the value of his own property. Hence he also thinks about it from future development point of view. Thus we can say that attention is forward looking or futuristic.

(V) Attention is Motivational: In paying attention to an object, event or problem there is always a dynamic factor behind it. There is a motive, desire, aim and a directing force which leads us to attend to it. e.g., In newspaper there are variety of informations, news and advertisements but an individual will read only that which gives motivations, like unmarried boys and girls will focus on marriage advertisements, unemployed will read about different employment information and people interested in cricket or other sports will be attracted towards that kind of news and information.

(VI) There are focus and fringe area of attention

Environmental objects which are attended to are in focus of attention and objects though present but are not directly attended to are said to be in margin of attention. e.g., when we look at a lighted candle in a dark room then the candle becomes the focus and everything else come in the margin of attention. In the same way when we listen to a singer on the radio then the voice of the singer becomes focus of attention while the music is in the margin of attention. It can be said that focus and margin areas of attention are in constant change. Focus and margin are reversible like the Rubin's Vase. If we look at the black colour we can see two faces and if we focus on white colour we can see the vase. it is very difficult to differentiate between the figure and background because when the face is in the focus vase becomes the background and vice versa.

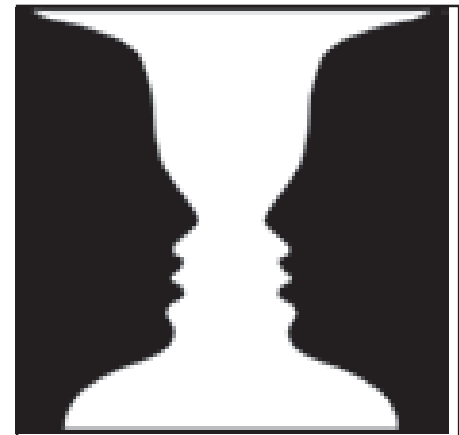


Figure 1.7 : Figure of Rubin's Vase

(VII) Attention in shifting : Constant change is an important feature of attention. Unless we are in deep concentration, attention changes from one point to another. Attention keeps on shifting from one object to another and hence it is also called as fluctuation of attention.

3. Determinants of attention

Why is our attention directed to a particular object , event or individual? What are the determinants that attract our attention? These questions are of practical importance for advertisers and exhibitioners because their main function is to draw the attention of people and sustain it. There are two types of determinants and they are as follows:

- (I) Objective or external determinants (factors)
- (II) Subjective of Internal determinants (factors)

(I) Objective Determinants: Factors which are related to colour, shape, size of an object or stimulus are called as objective determinants. They are:

(a) Intensity : Compared to a weak stimulus a strong or intense stimulus immediately attracts our attention. e.g., 108 emergency ambulance loud and continuous sound attracts our attention in comparison to a door bell. Bright light of 500 watt bulb attracts our attention more than a bulb of 40 watt.

(b) Size : Other things being equal a bigger object- compared to a smaller one will instantly draw our attention. e.g., a huge kite hanging in a kite shop or a large capsule hanging in a chemist shop will immediately attract attention.

(c) Contrast : Dissimilar or contrasting objects, compared to similar or simple objects play an important role in drawing attention. A negro man going about with a white lady will definitely attract attention in Africa.

(d) Motion : Compared to still objects moving objects draw people's attention more quickly. A vehicle in motion rather than stationary one, a flying bird in comparison to one sitting on a branch and a plane in the sky attract more attention.

(e) Change : Change also plays an important role in drawing our attention. e.g., A person or a train which is late everyday but sometimes comes before time then they attract everyones attention. A fan in motion suddenly stops then also it attracts our attention.

(f) Novelty : In a normal situation when there is some newness or novelty created then it attracts our attention. e.g., a teacher who dresses up formally everyday, one day comes to school in an informal dress then he becomes centre of attention for all.

(g) Repetition : Any stimulus if it is repeated again and again then it attracts our attention. Advertisers make full use of repetition. During election either on radio or T.V. same information will be repeated again and again so that it will draw the attention of the viewers towards it. Thus repetition is an important factor to attract attention.

(h) Colour : In the present age, advertisers along with black and white use wide variety of colours to attract the attention of the people. Because compared to black and white coloured objects draw attention faster. For this reason title pages of books and magazines are made bright and colourful so buyers are attracted to buy it.

(II) Subjective Determinants

Physical and mental factors related to people are called as subjective determinants. They are as follows:

(a) Interest or liking : A person will always pay more attention to things which he likes or is interested in. Interest is called the mother of attention. A person's attention is naturally drawn to matters in which he has interest. e.g., a musician's attention will always focus on the rhythm. A person interested in cricket is sure to attend to programmes related to cricket. As per Psychologists interest or liking not only attracts attention but also help in maintaining it for long time McDougall calls liking as "covert attention".

(b) Need : Need of an individual decides his action or behaviour. Biological needs like hunger, thirst, sleep, sex play a decisive role in attracting attention. A hungry man will attend to eatable things. Experiments have proved that while looking at beautiful pictures, a hungry man will be searching for eatable things. Psychological motives like love, curiosity, pride, security, power also play an important role in attracting our attention.

(c) Habit : Attention is habitual. Addiction or habit also attract attention. A habitual smoker's attention is naturally drawn to cigarette shops or advertisements even at unknown places.

(d) Learning : Learning plays an important role in attention. The type of learning or training determines the object of attention. A doctor will attend to diseases and medicines while a construction engineer will attend to building materials and mansions.

(e) Physical and mental state : The immediate physical- mental state of a person controls his attention from inside. An injured person's attention frequently goes to his injured limb. Mental tension and worry will also affect our attention.

Perception

1. Meaning and definition

After we feel sensation from our surrounding environment, we attend it and can understand what it is. The process of identifying and understanding an object is called perception. Perception is more complex than sensation as it is directly related to stimulus. When a sensation becomes meaningful it is called perception. Thus perception is the process of attaining knowledge through interpretation of sensation.

The definition of perception as per different psychologists are

"Perception is an organizational process through which we organize and identify objects in their proper form".

- H.E.Garrett

“Perception is a process through which we organize and interpret various patterns of stimuli in our environment”.

- **Hilgard, Atkinson & Atkinson**

“Perception is immediate sensation plus its interpretation of an object or situation through sensory organs”.

- **Collins and Drever**

As per the analysis of the above definition it can be said that:

- Perception is a meaningful organization of sensations.
- Perception is a complex mental process.
- We become acquainted with our surrounding world through various sense organs. A specific impression is made by each sense organ.

2. Process of perception : Sensation and interpretation are present in perception. When we attend to an object or a person, immediately messages from sense organs start reaching the brain via the spinal cord. The eye, ear, nose etc. send nerve impulses of sensation taking place in them to the brain. The brain processes this information and understanding of the meaning of stimuli arises .

Analytically, sensation and perception can be called separate process but from experimental and synthetic view point, sensation and perception is one continuous process. Thus perception includes sensation, brain activity and understanding arising from interpretation.

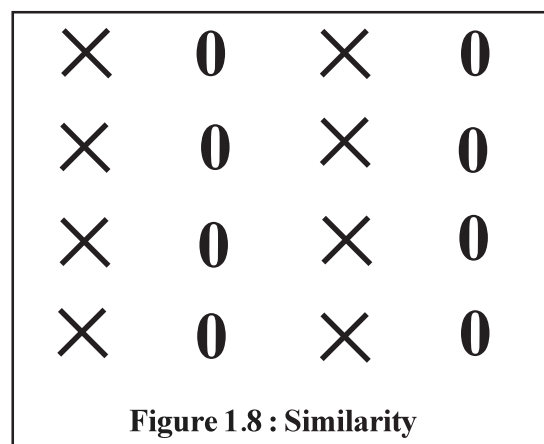
3. Laws of perceptual Organization : Organization is an important aspect of perception. In perception, various sensations are organized in a totality and we perceive the object or event as one single unit. This experience in the form of a pattern of sensation is known as perceptual organization.

We experience different primary sensation as one pattern, one group or one unit. On the whole an individual looks at the object as one single unit and not in different parts.

Perceptual organization of physical objects takes place also because of behaviour of an individual. It is important to make one thing clear that “ Perception is not sum total of sensations but something more important than that”. There are many factors that facilitate this organization of perception and are known as principles or laws of perceptual organization.

Gestalt Psychologists of Germany mainly Kohler, Koffka and Wertheimer, proposed that brain has a capacity for complete organization of perception. Gestalt Psychologists have stated the some laws of organization as follows :

(I) Similarity: Similar stimuli are grouped together. Compared to dissimilar stimuli, similar stimuli are more easily experienced as a group. Similarity between stimuli may be in respect to its size, shape, intensity or quality . e.g., During national festivals many institutions dress up the children in the colours of the national flag like white, orange, green and blue for Ashok chakra, arrange them exactly like a formation of a national flag. In the above figure 1.8 cross and circle are seen as horizontal lines each because of their similarity.



(II) Proximity : Stimuli lying near each other are experienced as a group while objects at some distance from each other of stimuli arising at some interval of time are experienced as separate. In figure 1.9 lines near each other are seen as a single group but lines arranged in pairs are seen as four pairs of lines because of law of nearness of proximity.

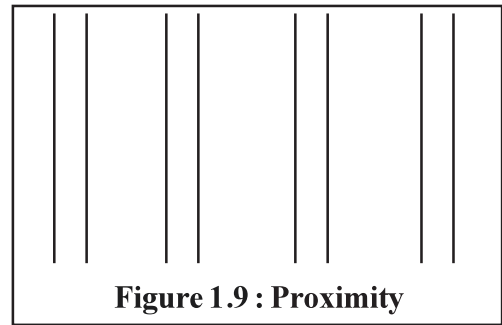


Figure 1.9 : Proximity

(III) Inclusiveness: In the figure 1.10 it has been observed that lines and dots have different shapes, their existence and meaning are also different but there are perceived as complete lines and dots and are not seen separately but due to law of inclusion are seen as figure of (%) percentage or (÷) division.

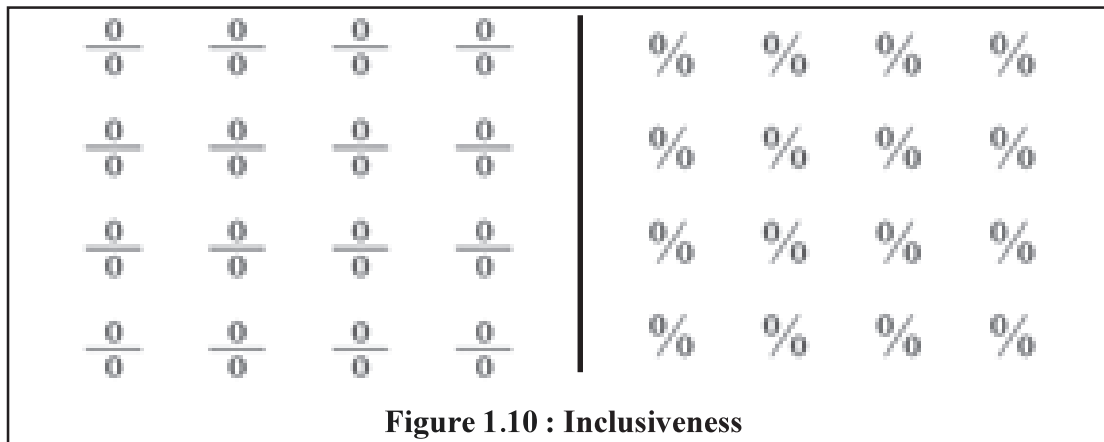


Figure 1.10 : Inclusiveness

(IV) Closure : Even if there is some empty space between stimuli or even if the object appears to be incomplete , there is a tendency to see it as a complete figure. This tendency is called closure. Our brain has the tendency to interpret a stimulus that is incomplete or of empty spaces as a whole stimulus.

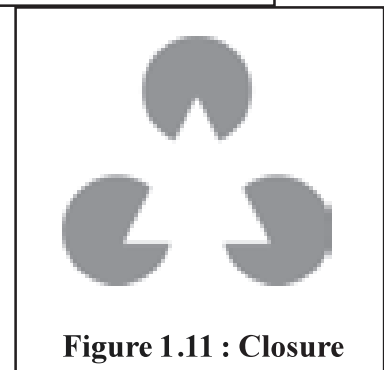


Figure 1.11 : Closure

4. Perception of depth and distance : Perception along with sensation gives a cognitive experience. We perceive the world and the objects there in three dimensions: length, breadth and depth or distance. The perception of depth or distance is a complex process.

We perceive depth or distance on the basis of structure of our eyes and some cues. To understand perception it is important to know about non-visual monocular cues and binocular cues.

(I) Non - visual cues : Such cues are based on processes other than vision. They include accommodation and convergence. In these cues , the image falling on the retina through the pupil of the eye is not used.

(a) Accomodation : To receive the image falling on the retina, there are adjustment movements in the lens. To receive sharp image on retina from distance, the lens contracts, its convexity decreases and the pupil contracts. This accomodation occurs with the help of the ciliary muscles of the eye. Kinesthetic sensation arising from these movements provide cues for distance perception.

(b) Convergence : To see a near object, both eyes can move in all the four directions. Even if we close one eye and see with other eye, the eyeball of the closed eye also moves with the open eye in the direction of the object. Thus when we direct our eyes to look at an object near or at a distance, the two eyes always converge simultaneously. This co-operation between eyes in natural and developed from childhood. While changing the focus from near to far or from far to near, convergence persists. Sensations in the eye movements are important cues for interpretation of depth.

(II) Monocular cues : Cues that are useful in depth and distance perception where the use of single eye is necessary are called monocular cues. They are perceptual cues operative in vision with one eye and are as follows.

(a) Interposition or Covering : When contours of one object partially covers the contours of another object, the object- whose contours are covered is obviously seen as far. This is because of interposition.

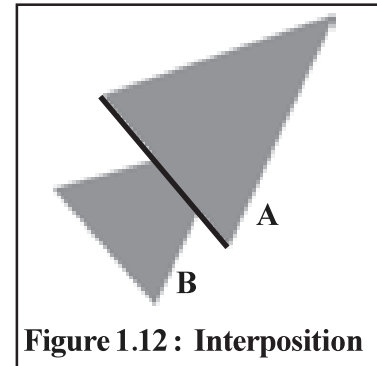


Figure 1.12 : Interposition

Figure 1.12 the contours of triangle B are covered by the contours of triangle A and hence triangle B is perceived to be far or seen as behind.

(b) Aerial perspective or clearness : Objects whose details and contours are seen very clear and well-defined are understood to be close. The contours and detail of objects at a distance look grey and hazy because of the atmosphere. Looking down from a tall building, objects that are near look clear but objects that are far look unclear and the scene looks hazy. It is for this reason, that in a stage performance of a drama, a minute net screen is placed in front, so that the scene on the stage looks hazy and effect of distance can be created.

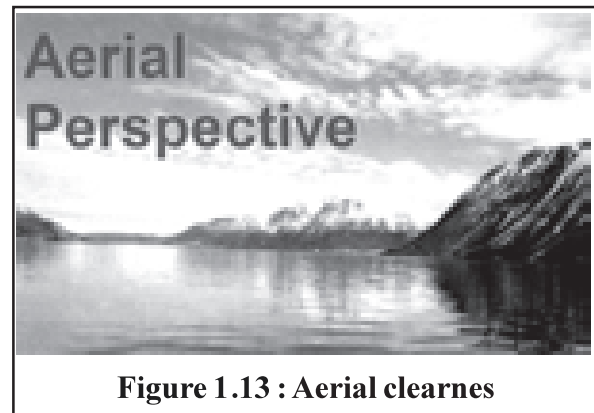


Figure 1.13 : Aerial clearness

(c) Linear Perspective : When parallel lines while receding, merge in retinal image at some point on horizon, it is linear perspective. Figure 1.14 when we stand between the two rails of the railway tracks, we see the two rails converging to a point on the horizon. But do not consider the convergence as a reality. Painters use re this cue to indicate relative distance of object in the picture.

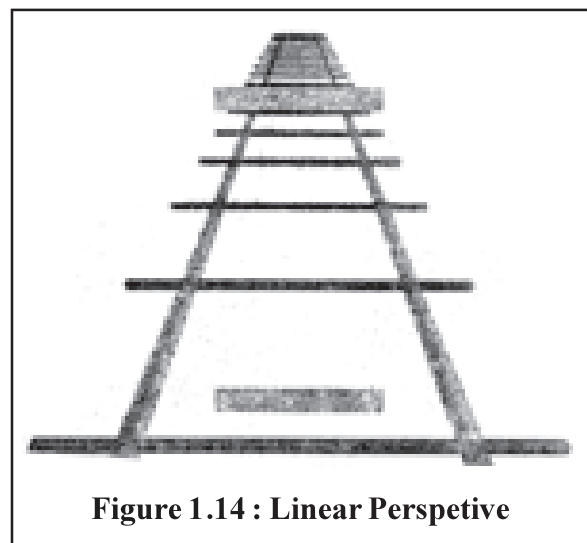


Figure 1.14 : Linear Perspective

(d) Light and shade : Light always travels from top to bottom and have shadows cast by an object either fall below or behind. In this way light and shade can help us to know the distance of the object.

When we look at a photograph of moon, the bright area is perceived as hills and the shaded area is looked as valleys or ditches. Painters as well as directors of drama use this cue of light and shade to indicate nearness or distance.

(e) Relative size of a familiar object : If an object whose real size is known to us, appears small in relation to surrounding objects or to its known size is perceived to be at a distance. As the objects moves farther away its size decreases and its image on the retina also becomes small. We interpret the retinal image on the basis of familiar size. Retinal images may differ but size of objects remain constant.

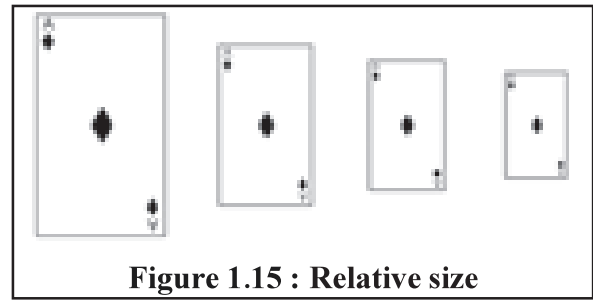


Figure 1.15 : Relative size

(f) Texture of surface and gradient : Gradient is a slow, gradual change in the surface such changes in the surface of ground provide cues for distance. The nearer surface looks full of details and rough. We can see the pits and mounds. But as distance increases the surface of the field becomes more uniform and the texture gets finer. So if the texture looks smoother, it is perceived to be at a distance. Thus the pattern and gradient of surface also help in perceiving depth and distance.

(III) Binocular cues : When an object is seen with both the eyes, there are two retinal images of an object yet we perceive a single object. Cues which help in distance perception when both eyes are equally involved are called binocular cues.

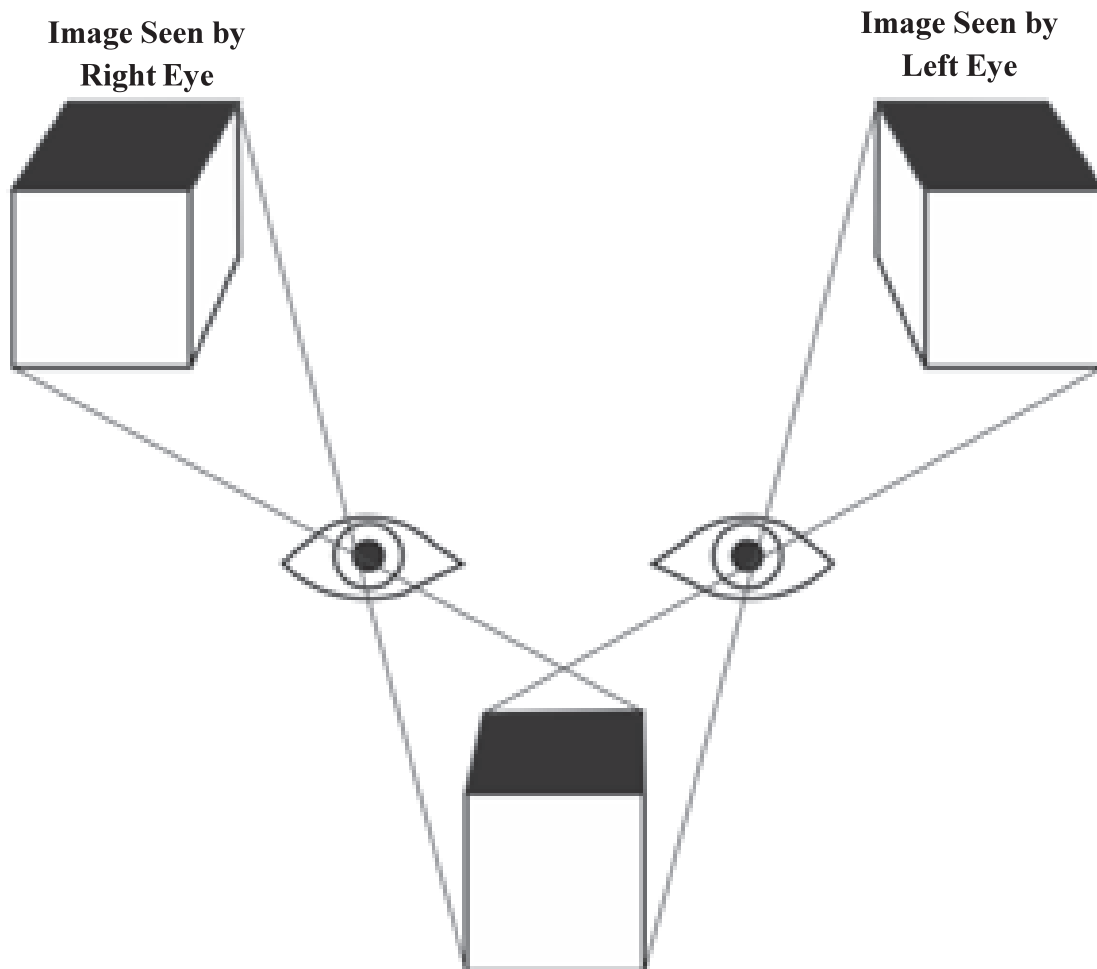


Figure 1.16 : Binocular Disparity

(1) Double image : You look at two objects in space in front of you one nearer and the other far. Focus your vision on the nearer object and try to look at the object that is farther. It will look unclear and will have double images. Normally we are not consciously aware of the two images. But its indication helps in perception of relative distance.

(2) Binocular disparity : When we see an object with two eyes, the retinal images falling on the two retinas are not identical. There is a difference between the retina images of the left and right eye because there is a distance of 2 to 2 2^{1/2} inches between the two eyes. So there is a difference in location of their fovea. Visual areas of left and right eye differ. Left eye has a visual area a little more on the left and right eye has a visual area little more on the right. This is called binocular disparity. In spite of this disparity, when we see with both the eyes, their retinal images merge, we do not have double vision but one stereoscopic vision in three dimensions and perceive depth and distance.

Hence to get information about the external world, Sensation, Attention and Perception are important and prominent physical mental process.

Exercises

Section - A

Select the appropriate alternative and rewrite the answer :

- 1) According to which Psychologists “Attention is mental concentration on a selected stimuli”.
 - (a) C.T. Morgan
 - (b) James Drever
 - (c) H.E. Garrett
 - (d) Henning
- 2) What is called as mother of attention?
 - (a) Education
 - (b) Need
 - (c) Habit
 - (d) Interest
- 3) What is Sensation?
 - (a) Awakening
 - (b) Conscious experience
 - (c) Knowledge experience
 - (d) Perception
- 4) Which Psychologists has given types of smell?
 - (a) J.B. Watson
 - (b) Freud
 - (c) Elizabeth Hurlock
 - (d) Henning
- 5) With what is the principle of closure associated?
 - (a) Focus of attention
 - (b) Sensation
 - (c) Perceptual knowledge
 - (d) Proximity
- 6) Into how many parts is the observation of the external world distributed?
 - (a) three: Attention, Sensation, Perception
 - (b) two: Focus, Margin
 - (c) four: eyes, ears, nose, skin
 - (d) Only visual perception

- 7) Which Psychologists have given the laws of perceptual organization?
(a) Henning, Watson, Wertheimer (b) Freud, James Watt, Kohler
(c) Wertheimer, Kohler, Koffka (d) Koffka, Wilhelm Wundt, Kohler
- 8) What are the names of the cells responsible for visual sensations?
(a) Nerve cells, hair cells (b) Colour cells, chromosomes
(c) Genes, chromosome (d) Rods and Cones
- 9) How many type of sensations are experienced by the skin?
(a) three (b) nine
(c) two (d) four
- 10) What is Binocular disparity?
(a) To see double image with one eye (b) To see slanting with two eyes
(c) To have different images on the retina of both the eyes (d) To be unable to see with two eyes

Section - B

Answer the following questions in one or two sentences each :

- 1) What is attention based on ?
- 2) Which Psychologists have given the law of perceptual organization?
- 3) In which part of the tongue we can experience bitter taste?
- 4) What is Proximity in perceptual organization?
- 5) Which word has been used for liking by Macdougall.
- 6) Name the bones of the middle ear.
- 7) What is the range of sound waves can a person experience in auditory Sensation?
- 8) State the cues responsible for depth perception.
- 9) What is the reason of binocular disparity in visual sensation?
- 10) Why does the human skin feel the sensations like heat, cold etc?

Section : C

Answer the following questions in round about 30 words :

- 1) What is sensation?
- 2) What is distraction of attention?
- 3) State the characteristics of attention.
- 4) What is linear perspective? How does it take place?
- 5) Which cues are used by painters and directors of drama for distance and Why?

- 6) What is accommodation?
- 7) State the subjective determinants of attention.
- 8) What is the meaning of focus of attention?
- 9) Explain “Relative size of an object”.
- 10) Explain the statement : “Attention is Motivational”.

Section - D

Answer the following questions as asked (in about 50 words) :

- 1) Explain the meaning and definition of perception.
- 2) Explain the Process of perception.
- 3) Explain in detail auditory sensation.
- 4) Give explanation of different taste centres in taste Sensation.
- 5) State monocular cues and explain any two.
- 6) Give the meaning of sensation and explain it.
- 7) Explain “Binocular disparity”.
- 8) Explain law of inclusiveness in perceptual organization.
- 9) Give the meaning of convergence and explain it.
- 10) What is reversible figure Explain.

Section - E

Answer the following questionations in detail (in about 80 words) :

- 1) Explain the process of sensation and its receptors.
- 2) What is attention? Explain its characteristics.
- 3) Explain with examples the objective determinants of attention.
- 4) Explain with diagram laws of perceptual organization.
- 5) Explain in detail visual sensation.



Psychology is a Science of behaviour. In recent study it has been found that every living being on earth has to learn to adapt to the surrounding environment and it is an inevitable process. Every living being for his own safety and sustainment has to learn something or the other skills. Learning brings change in behaviour and situation and helps man to solve different types of problems. It can be said that human being can live freely, safely and with satisfaction only because of the skill of learning.

Every human being, during his life span behaves in two ways

1. Natural behaviour
2. Learned behaviour

There is no need for any kind of formal education for natural learning, At the time of birth human baby is capable of making only a limited number of response which can be termed as in born or natural behaviour for e.g. An ant pulling a grain for its survival, a new born calf immediately starts suckling its mother, cry of a baby immediately after it is born can all said to be inborn responses.

Normally every living being to satisfy its basic needs and to safeguard itself gives out natural responses to the environment which we can call as natural behaviour. Learned behaviour means that learning which takes place by observing others or is taught to an individual by other people or stimulus in the environment. Whenever a man or animal learns something, there is a change in one's behaviour. But if this behaviour change occurs as a result of experience or practice then only it can be called as learning. Its natural for a child, as he/she grows and matures, brings a change in his behaviour pattern because of his experiences from the environment and also learn to adapt to the situation. Hence it can be said that learning is a continuous process from birth till death.

An Individual in his childhood acquires basic learning either by modeling or by trial and error. In adolescence his learning is based on conditioning where as problems in youth are solved by his learning and experiences of the past and its insightful application in the present situation. So it can be said that a person can learn language, behaviour, Attitude, discipline etc. through education and develop his personality.

So an individual can sail through the ocean of life successfully with help of learning and education.

What is learning? Definition and its Explanation:

According to American Psychologist C.T. Morgan, "Learning is any relatively permanent change in human or animal behaviour as a result of experience or practice." This definition throws light on three important points in learning process.

1. Experience and practice
2. Change in behaviour
3. Relatively permanent change

Let us understand in detail the above features of definition of learning.

1. Experience and practice: Whenever men or animals learn something, there is change in behaviour. But if the behavioural change is not by training, experience or practice then it can not be called as learning. One should note that behavioural changes also occur due to maturity, tiredness, diseases, injury etc. But such behavioural changes also can not be called learning. For e.g. as the child grows old it learns to crawl or turn upside down but this learning is because of growth and maturity, hence psychologists do not accept it as the

process of learning. In the same way when we cannot stand properly due to exhaustion or breaking of a bone due to injury and not being able to walk properly cannot be called learning. Any behavioural change that takes place by practice or experience can be called learning.

2. Change in behaviour: It can be called learning only when it brings change in the behaviour pattern of the individual. e.g., A child who does not know how to ride a bicycle will fall down when he tries to ride it for the first time. But with training and practice the child will learn to keep balance, paddle slowly and learn to ride a bicycle. This example clarifies that learning brings about change in behaviour.

3. Relatively permanent change : The behavioural changes produced by learning are relatively permanent. The behavioural changes that are temporary which occur because of fatigue, drug or disease cannot be called as learning. It was found in the above example that due to exhaustion, man cannot walk properly but after exhaustion when we can walk properly then such change cannot be called as learning. Instant behavioural changes which are temporary are not accepted by psychologists as learning. Only those changes which are for a long time and relatively permanent are accepted as learning. e.g., When a child tries to ride a bicycle for the first time he falls down but with practice for some days, he learns to ride the bicycle and also go to school. This is called a relatively permanent change in behaviour due to learning.

How do we learn?

After getting the idea about learning, the most important question that arise in the mind is that how does learning take place? Different types of research have been done by expert Psychologists. In relation to this many researches and experiments have been performed on humans and animals to see how learning takes place. Out of the many, we are going to study five experiments in detail.

1. Learning by Emulation(Modeling & Imitation): Most of the learning done by a human child or animal is because of Imitation or Emulation. Learning by emulation is called observational or social learning. Observation is the most important source for emulation. An individual learns through observation from its surrounding environment and then emulates it. e.g., a child imitating the act of filling petrol in its tricycle just as parents do it in scooter or trying to fill air in the cycle wheel and also giving money etc. All these are examples of behavioural patterns practiced by children because of learning by emulation.

A one year old child putting a mobile phone near the ear and talking is an example of learning by emulation. There are lot of examples which we can get from our daily life and social surroundings and so this learning is also called social learning. While watching TV, young girls imitate the dressing style and cosmetic usage just like the actresses. This can be called the example of learning by modeling.

2. Learning by trial & error(experiment by Thorndike)

American Psychologist Thorndike had prepared a puzzle box in such a way that when the lever inside the box is pressed then only the door would open.

- **Experiment by Thorndike**

Thorndike put a hungry cat in the puzzle box and put food just outside the box in such a way that it can be seen by the hungry cat. The cat tried to come out of the puzzle box to get the food and for that it tried very hard. At first it started scratching and pulling at the bars of the puzzle box, roamed about in the puzzle box etc. The cat was trying to come out of the puzzle box but it was not successful. The cat again practiced the same kind of behaviour, eventually the cat accidentally happened to press the lever and the door of the puzzle box opened. Here the pressing of the lever by the cat was accidental and it was not aware that pressing of the lever had opened the door. So when the cat was again put back in the box, it went through a series of incorrect responses before pushing the lever. In this way Thorndike continued the experiment for 24 days and on the 24th trial when the hungry cat was put in the puzzle box it immediately pressed the lever and came out of the box. Here the cat had learned to perform the act of pressing the lever to open the door.

Basically in trial and error learning, as the trial increases, the time taken to learn and the errors both decrease. In the above experiment also, in the first trial the cat took 160 seconds to press the lever and open the door whereas in the 24th trial it took just 10 sec. to press the lever and open the door. The cat became progressively quicker at escaping from the puzzle box.

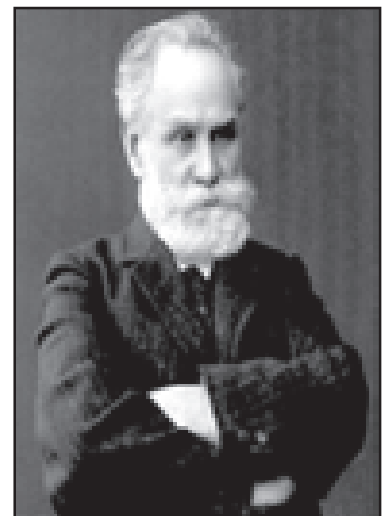
Hence in trial and error learning as trial increases, errors decrease and finally learning takes place without any error.

3. Learning by conditioning:

Conditioning means to associate. It is a pattern of learning based on association and it is the simplest method of learning. More frequent and predictable response given to a stimuli in a given situation or environment can be called as conditioning. e.g., different sound of the school bell is associated with different activities.

In this kind of learning an individual experiences a series of sensations in the brain and so on presentation of a particular stimuli it evokes an response associated with it. In this way we can say that conditioning means series of experience in which presence of a stimulus also make us realize the presence of many associated stimuli.

The first investigator of this type of learning was by Russian physiologist Ivan Petrovich Pavlov(1849-1936) and he was primarily interested in the physiological aspect of digestion. Traditionally conditioning is also called as classical conditioning.



Ivan Petrovich Pavlov

(1) Experiment on classical conditioning :

Russian physiologist Ivan Petrovich Pavlov(1849-1936) was primarily interested in study of digestion. To satisfy his curiosity he conducted various experiments on dogs during which he gained lot of information on conditioning and psychologists got the gift of classical conditioning from Pavlov. He was awarded the Nobel prize for physiology and medicine in 1904.

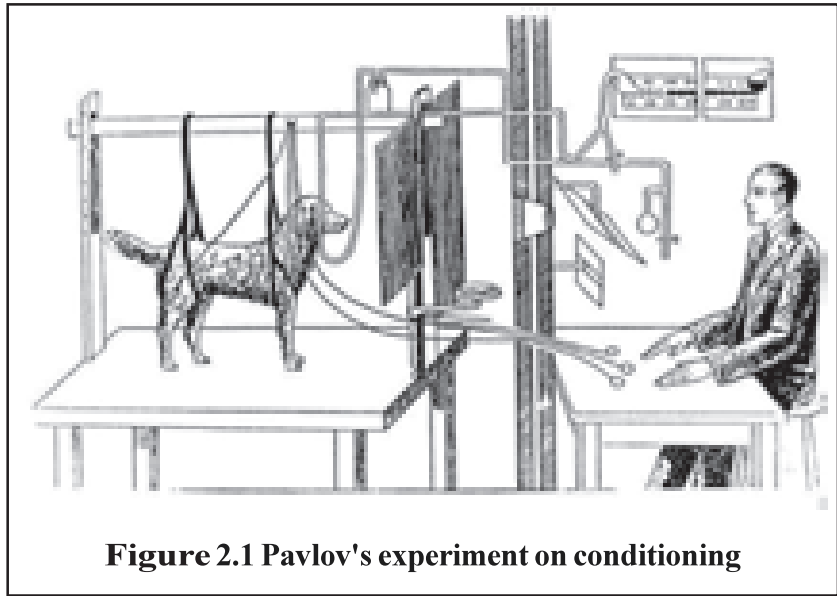


Figure 2.1 Pavlov's experiment on conditioning

Pavlov designed a special stand on which a dog was harnessed in such a way that the dripping saliva would fall in the measuring glass.

Firstly Pavlov presented food before the hungry dog and the dog started salivating which was a very natural response.

Now a bell was sounded followed by serving of food to the dog. This was repeated for some days. After a few such trials, the test trial was introduced in which everything was the same except the presentation of food. In the beginning, the salivary response was noticed in response to food. But afterwards the saliva started to secrete in the presence of sound bell only. Now only at the sound of the bell and the dog started salivating. Pavlov did not stop the experiment here but he brought about changes in the presentation of stimuli to study in depth learning of classical conditioning.

(II) Important features of classical conditioning: The above experiment explains in an easier way Pavlov's classical conditioning but being students of Psychology, it is necessary to know important terms used in it.

(a) Unconditioned stimulus (UCS) : In basic terms, the stimulus which produces a response which is unlearned, natural and not taught is called as unconditioned stimulus(UCS). In Pavlov's experiment when food is presented to a hungry dog it starts salivating which is a natural response and so here food is said to be unconditioned stimulus.

(b) Unconditioned response (UCR) : Any response which is not associated learned or conditioned cannot be called as learned response. Any kind of physiological response which is unlearned is known as unconditioned response(UCR). In short natural response to a natural stimulus is called as UCR. In Pavlov's experiment salivation is a natural response by the dog on seeing the food i.e.(UCS). The response of salivation is (UCR).

(c) Conditioned stimulation (CS) : Usually the conditioned stimulus is a natural stimulus. It can be said that a stimulus which is presented with the unconditioned stimulus and it helps in eliciting an unconditioned response than that stimulus is called conditioned stimulus(CS).

In initial trials of Pavlov's experiment it was found that the dog started salivating on seeing the food. After a few trials first bell was sounded and then food was presented and it was noticed that the saliva started to secrete at the sound of the bell only which signifies that learning had taken place in the dog. So a stimulus that can elicit a conditioned response is called as conditioned stimulus(CS).

(d) Conditioned response (CR) : The response which was not associated with a particular stimulus before but after learning and practice, when conditioned stimulus(bell) is presented it elicits a conditioned response i.e. salivation. So in Pavlov experiment when the sound of bell made the dog salivate it become conditioned response i.e. (CR).

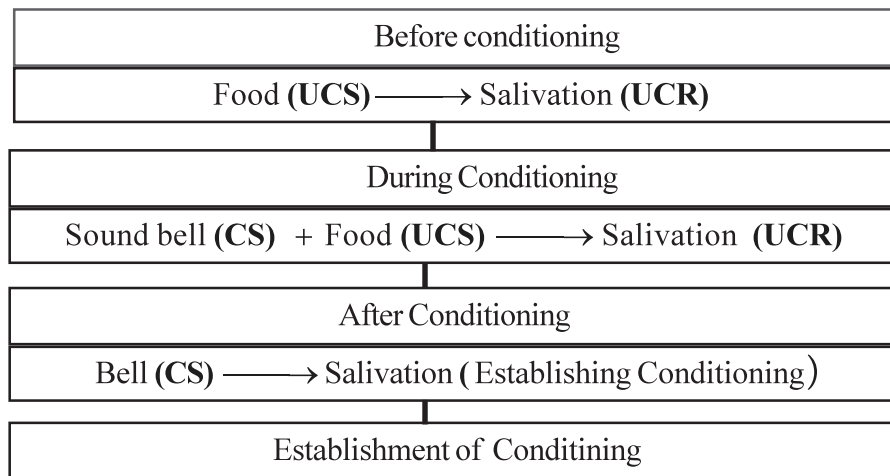


Figure 2.2 : Stages of conditioning and procedural operations.

(e) Reinforcement: Reinforcement refers to the administration of reinforcement by an experimenter. Reinforcer is any stimulus which strengthens the response. In Pavlov experiment food was the reinforcer.

(f) Extinction: If the conditioned response is not reinforced. i.e. unconditioned stimulus(food) is not presented continuously for several trials along with conditioned stimulus(bell), the conditioned response(salivation) slows down gradually and ultimately stops. This is called extinction.

(g) Stimulus generalization: After the establishment of conditioning, the conditioned response(CR) also occurs by other stimuli similar to the conditioned stimulus(CS). It is called generalization. In Pavlov's experiment, after the establishment of conditioning of the salivary response to a bell, the dog used to salivate to the sound of electric buzzer and the sound of a metronome also.

(h) Stimulus Discrimination: To be able to differentiate between stimuli and also learn to respond to one stimuli in one way and the other stimuli in other way is called as stimulus discrimination. After stimulus generalization, if food follows the sound of bell only and does not follow the sound of buzzer, then the dog learns to differentiate between two sounds. That means saliva is secreted only at the sound of bell and not by the sound of the buzzer if this is repeated then slowly the dog will stop salivating at the sound of the buzzer because it has learned to differentiate between two sounds.

4. Skinner's experiment of operant conditioning

Just as Pavlov gave us the gift of classical conditioning in the same way American Psychologist B.F.Skinner(1904-1990) gave us the gift of learning by operant conditioning this study is slightly different from that of Pavlov. In classical conditioning man did not do any activity yet he used to get reinforcement while in operant conditioning subject will have to perform some specific activity to get the reinforcement. He studied the conditioning, voluntary responses which are under the control of animal or man. The subject will operate on the environment and hence it is called operant. In this type of conditioning man or animal has to perform a task decided by the experimenter so this type of learning is called "Instrumental conditioning".

As per skinner's experiment, by giving reinforcement whatever desired behaviour is to be taught can be done easily. For his experiment, skinner prepared a puzzle box which was called “Skinner's Box”. The skinner box was specially designed in such a way that rat can move inside the box but cannot come out. There was a bar(lever) in the box, which was connected with a food container, kept on the top. When the bar was pressed the food pellet would drop in the food tray.



B.F. Skinner

A hungry rat was placed in the skinner's box. In the beginning the rat kept on moving inside the box as it could not come out. It started pulling at the bars of the box, biting it, running here and there etc but while moving around and pawing the walls(exploratory behaviour) the hungry rat accidentally pressed the bar and food pellet dropped into the food tray. The hungry rat ate it up. In the next trial, the exploratory behaviour started again and the rat again accidentally pressed the bar and food pellet dropped

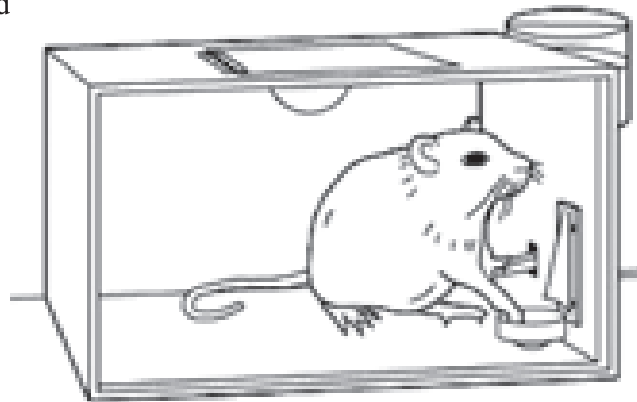


Figure 2.3 : Experiment by Skinner for Operant conditioning

In the first trial the rat got the food pellet after 15 minutes in the box. The second food pellet was obtained after 35 minutes which means that it got the food pellet after 20 minutes in the first trial. In the same way the third food pellet was obtained by the rat after 47 minutes and the fourth after 71 minutes. As the number of trials increased, the rat learned to press the bar to get food in lesser and lesser time. Now, when the hungry rat was placed in the skinner box, it immediately pressed the bar and got the food pellet. Here bar pressing is an operant response and food is its reinforcement. In the above experiment the bar pressing response is instrumental in getting the food. Hence this type of learning is also known as “Instrumental conditioning”.

Hence, in operant conditioning the rat accidentally learned to press the bar in the beginning but with reinforcement(food) learning took place.

Determinants of operant conditioning

(a) Reinforcement : It may be defined as any stimulus or event which increase the probability of the occurrence of the response. Any behaviour that is learned or changed through the consequence are called as reinforcer. In classical conditioning the food is the reinforcement because of which the dog learn to salivate where as in operant conditioning the rat learns to press the bar because the food pellet was the reinforcement.

Reinforcement is of two types (I) Positive reinforcement (II) Negative reinforcement

(i) Positive reinforcement: Positive reinforcement is a stimulus which increases the probability of response, when presented after the response. It increases the rate of response that precedes its presentation. For skinner, hungary rat gets food pellet after it presses the bar, as a result the probability of bar pressing response increases. Positive reinforcers have pleasant sequence as they strengthen and maintain the response upon which they are contingent. e.g. A mother giving a chocolate to her child on finishing his homework. Chocolate is a positive reinforcement for the child.

(ii) Negative reinforcement: Generally positive reinforcement is looked upon as a reward while negative reinforcement as punishment. But as per skinner negative reinforcement cannot be considered as punishment. Negative reinforce is a stimulus which increases the probability of response, when removed after the response. So if by systematically used it can lead to a desired response.

In operant conditioning negative reinforcement is not used as punishment but to increase the probability of escape or avoidance response. In skinner's experiment supposing the pressing of the bar would have given relief from the electric shock to the rat, then to come out of the painful situation, the rat would have learned to press the bar.

Reinforcement can be positive or negative but it can be called as reinforcement only when it increases the probability of desired response in men or animal.

In operant conditioning skinner tested the effects of reinforcement on rat by changing the number, amount and quality of reinforcement, schedules of reinforcement delayed reinforcement etc to see how effective the conditioning takes place.

(b) Extinction: When any learned response gradually becomes slow and ultimately stops then it is called as extinction. After having learned the response, if the animal is not given reinforcement though it does the activity of responding then it completely stops is called as extinction.

After learning to operate an instrument in the form of response, if the animal is not given reinforcement for many trials then slowly the animal stops giving the learned response and then totally stops. It means the established conditioning gets extinct.

In skinner's box the rat has learned to press the bar to get the food pellet. Now if the rat presses the bar again and again but the food pellet is not given than rate of pressing the bar is reduced and it also stops at the end. Thus the conditioned operant response extinguishes in the absence of reinforcement.

(c) Stimulus generalization: Just as we have seen stimulus generalization in classical conditioning, its not possible in operant conditioning because in this type of conditioning the Skinner's box is the main stimulus, but there are lot of example of stimulus generalization in our daily life. e.g, if you hide the toy of the child in a particular place, at first the child. it will search for it randomly and accidentally be able to find it. But when this is done again and again then the child will not search for it but will immediately go to that place and find the toy. This activity of the child takes place because of conditioning. Now even if the place is changed to hide the toy, the child will be able to find it in no time as it will associate the old place with new place and this takes place because of stimulus generalization.

(d) Stimulus discrimination: In operant conditioning experiment the rat is taught to differentiate between the two stimulus i.e. presence of light and absence of light. If the rat presses the bar in the presence of light then it would get the food pellet and if presses the bar in absence of light then no food pellet for the rat. After a few trials the rat learned to discriminate between presence and absence of light. So the rat used to press the bar only in the presence of light. It was because of learning to discriminate between stimuli.

5. Learning by Insight

Learning by insight is a comprehensive act of process of learning. In which men or animal have an abrupt or sudden realization of a problems solution because of their own insight. German Gestalt Psychologist Wolfgang Kohler was the first one to conduct experiments which led to development of first cognitive theories of learning. During the world war, he performed experiment on apes and studied their behaviour on canary Island. His contribution in the theory of learning by insight is remarkable. According to Kohler, insight learning is not the result of trial and error or of observing someone else attempting the problem but it depends on the individual or animals ability to visualize the problem internally and then respond to it. Following the occurrence of insight, the realization of how to solve the problem can be repeated in future similar situation once learning takes place.

Kohler's experiment on chimpanzees:

According to the principle of evolution lower level animal learn by Imitation but in higher level animal learning can take place because of insight and conditioning. To study learning by insight Kohler made use of chimpanzees because as per theory of evolution they have the same structure of brain as the humans. He tried to study and observe how the chimpanzee tried to solve the problem and so lets study few of his experiments in detail.

(a) Experiment with one stick: Kohler has performed different experiments on chimpanzees where there were simple to complex problem situation. In this experiment he has tried to observe how chimpanzee solve a very simple problem. He put a hungry chimpanzees in the cage and put a bunch of bananas just outside the cage so that the chimpanzees can see it and he also put a stick in the back portion of the cage. It was obvious that the chimpanzees tried very hard to reach the bananas by pushing his hands outside the cage, he tried with legs and so on. But he was not successful so he stopped doing any activity and sat down in the cage. Suddenly he saw the stick and so he took the stick, went in front of the cage and pulled the bananas towards it with the stick. In this way the chimp succeeded in solving the problem by sudden insight when he saw the stick.

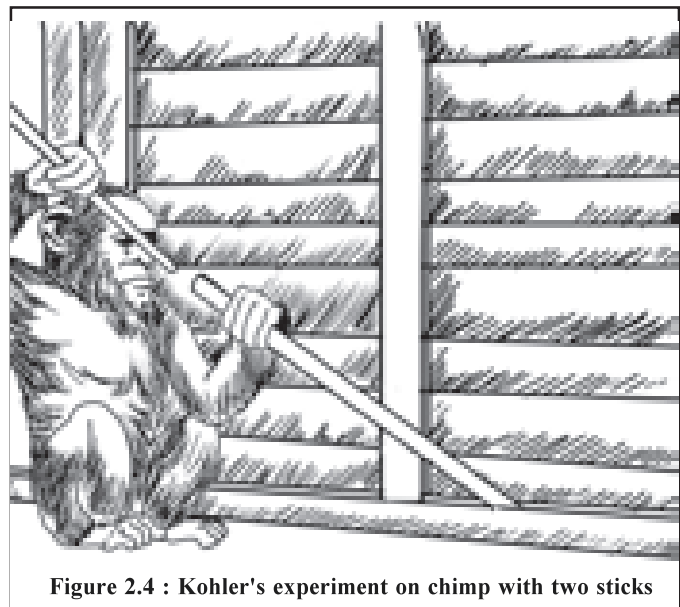


Figure 2.4 : Kohler's experiment on chimp with two sticks

(b) Experiment with two sticks: In this experiment he posed a slightly difficult problem in front of the chimpanzees. This time he put the bunch of bananas a little further away than the first time. Inside the cage he put two sticks, made in such a way that both can be joined to make one long stick. When the hungry chimp was put in the cage it started its expolatory behaviour but as soon as he saw the short stick he immediately tried to pull the bananas with the stick but was not successful in reaching it. He tried very hard to get the

bananas with the long stick, but was not able to get it. He then gave it up and started playing with the two stick. Suddenly while playing he happened to place the small into the long stick to make one very long stick. As soon as he joined the sticks he realized that now he can reach the bananas. In this way a slightly difficult problem was also solved by the chimpanzee because of his insight.

(c) Experiment with boxes: Kohler tried to test whether insightful learning can take place in chimpanzee to solve a complex problem. In this experiment Kohler put three boxes in a high ceiling room and he hung a bunch of bananas from the ceiling in the middle of the room. When the hungry chimp was put in the room, he started jumping to get the bananas. He tried very hard but all was in vain. Ultimately he saw the boxes which were there in the room. He pulled the box in the middle of the room, climbed on it to get the bananas. One by one tried with all three boxes. But as he was not successful in getting the bananas he became sad. He kept on looking at the boxes. Suddenly by insight the chimpanzee pulled the boxes in the middle of the room and started stacking it on each other. For first few minutes he was not able to arrange it properly but the chimpanzee did not give up. He tried till he was able to arrange the boxes one upon another perfectly so that he could climb and reach the hanging bananas.

Kohler clearly tries to make us understand that how chimpanzee's early learning helped him to solve his problems by making use of available instruments' or tools. According to Kohler the process of solving a problem in a new situation begins with trials and error but later on with learning, it tries to apply it in solving the problem. According to Psychologist Harlow, insight cannot take place with past learning. Insight learning happens regularly in our lives and all around us. Inventions and innovations alike are often at times the result of insight learning. It is called as "Eureka or Aha" experience. Insight learning is also called as out of the box thinking.

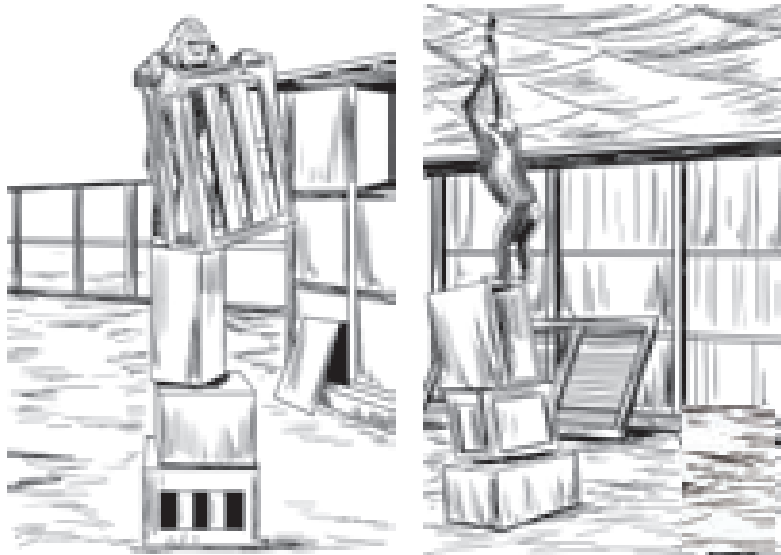


Figure 2.5 : Kohler's experiment with boxes

Hence in learning to solve a problem, if the problem situation is arranged in an organized way then it takes us closer to the solution and then by insight, problem can be solved.

In this way every living being on this earth, to survive adapts to the surrounding environment with some or the other kind of learning process. Mostly every living being uses more than one kind of learning skills to live life.

Excercises

SECTION - A

Choose the correct answer from options given and rewrite the answers :

1. What is gradual diminishing of a learned response called as?
(a) Reinforcement (b) Extinction
(c) Discrimination (d) Generalization
2. Which behaviour does not require any formal education and is by birth?
(a) Learned behaviour (b) Emulative behaviour
(c) Natural behaviour (d) Misbehaviour
3. What is a relatively permanent change in behaviour because of experience and practice called as?
(a) Sensation (b) Attention
(c) Learning (d) Perception
4. Who conducted experiments on learning by Trial and error?
(a) Pavlov (b) Skinner
(c) Thorndike (d) Watson
5. In Thorndike's experiment, How many trials did the cat take to learn?
(a) 6 (b) 24
(c) 12 (d) 18
6. Which Psychologists got the Nobel prize in medicine?
(a) Pavlov (b) Kohler
(c) Skinner (d) Thorndike
7. What is that stimulus called which elicits an unconditioned response when presented with unconditioned stimulus?
(a) Unconditioned stimulus (b) Conditioned response
(c) Conditioned stimulus (d) Normal stimulus
8. When stimulus is similar to another stimulus then it is called.....
(a) Stimulus- Stimulus association (b) Stimulus generalization
(c) Extinction (d) Stimulus discrimination
9. In which type of learning animal has to respond then only it will get food?
(a) Classical conditioning (b) Learning by observation
(c) Operant conditioning (d) Learning by insight

10. On which animals did Kohler perform his experiment?
- (a) Rat (b) Cat
(c) Dog (d) Chimpanzee

SECTION - B

Answer the following in one or two sentences each :

1. Define learning.
2. Who conducted experiment on learning by trial and error?
3. What is unconditioned response?
4. What is reinforcement?
5. State the important features of classical conditioning.
6. Who gave the concept of operant conditioning?
7. In operant conditioning when can we see extinction taking place?
8. With which type of learning "Aha" experience is associated?
9. With which School of Psychology Kohler is associated?
10. On which island Kohler conducted the experiment on chimpanzee?

SECTION - C

Answer the following in about 30 words :

1. Explain with example relatively permanent change.
2. What is positive reinforcement?
3. Explain conditioned stimulus and conditioned response.
4. Explain extinction in classical conditioning.
5. State the types of learning.
6. Explain the puzzle box used in operant conditioning.
7. Explain the relation between animal and reinforcement in operant conditioning.
8. When does the rat learn stimulus discrimination in operant conditioning?
9. Who conducted experiment in learning by insight and on whom?
10. What kind of behaviour is seen in living being during their life span?

SECTION - D

Answer the following in about 50 words :

1. Explain with example learning by emulation.
2. Explain Thorndike's experiment.
3. Explain with example stimulus generalization in classical conditioning
4. What is stimulus discrimination in classical conditioning?

5. How are classical conditioning and operant conditioning different in strengthening the response?
6. Explain Kohler's experiment on chimpanzee with boxes.
7. Explain with examples types of reinforcement.
8. In reading, which three aspects are important? Explain.
9. Explain the important features of classical conditioning.
10. Explain Kohler's experiment with one stick conducted on chimpanzee.

SECTION - E

Answer the following questions in about 80 words :

1. State the definition of learning and explain it in detail.
2. Explain the importance of advancement in trials in Thorndike's experiment.
3. Explain Pavlov's classical conditioning.
4. Explain Skinner's puzzle box and how it's used in the process of experiment.
5. State the experiments conducted by Kohler on chimpanzee and explain the experiment with two sticks.



Man is the most extraordinary living creature in the entire universe. In comparison to other living things it has got some special physical and mental capacities. As per the theory of evolution, a human brain is more developed in comparison to other animals. As a result he has mental capacity like reasoning, thinking, imagination, memory, creativity etc. Out of the various mental capacities that humans have intelligence is one of the most valuable asset.

Generally we use terms like sensible, clever, ability, acumen, caliber, sharpness, shrewdness, understanding, talent etc. as synonyms of intelligence. In our daily behaviour and communication we make use of these words again and again.

Intelligence is a complex mental process. It provides adequate understating about how to behave. Intelligence is not limited to a single activity but is associated with various activities tasks, situations. The daily activities like brushing, bathing, wearing clothes, remembering day-date – festivals, social relationships, aptitude in sports and competitions, solving simple or complex problems in life, to be able to understand the depth of scientific rules etc. are all related to intelligence. Intelligence is associated with physical, mental, emotional, social, political, scientific, cognitive etc. aspects of human behaviour.

There are various types of intelligence test developed in Psychology to measure the intelligence of an individual. On the basis of the score attained in an intelligence test, we can know about intelligence capacity of an individual. As per international standards intelligence can be classified as border line, dull, average, bright normal, superior or gifted in a scientific way.

Definition and Nature of Intelligence :

What is intelligence ? To know it more clearly and specifically, let us understand the definition and nature of intelligence.

1. Definition of Intelligence: Different Psychologists have tried to define intelligence from different perspective. In 1879 a German Psychologist Ebbinghaus, had first tried to define intelligence on the basis of differences in two individuals. Intelligence is derived from Sanskrit word 'Budh'-metal. It also means to understand or attain knowledge. On its basis, intelligence means ability to understand or ability to gain knowledge.

The English word intelligence is derived from Latin word “intelligere”. Intelligere means to be able to understand. So intelligence also means understanding. The following are the definitions of intelligence.

“Intelligence means the ability to understand or apperception of mind to know about an object”.

Sarth Gujarati (2008)

“Intelligence means the ability to judge well, understand well and to reason will”.

Binet and Simon (1904)

“A person is intelligent to the extent that he has the ability to think abstractly”.

Ierman (1916)

“Intelligence is the aggregate or global capacity of individual to act purposefully to think rationally, and to deal effectively with the environment”.

Wechsler (1939)

“Intelligence is the ability or skill to solve problems which are considered important in one or more cultural settings or to create valuable things”.

Gardner (1986)

“Intelligence comprises the mental abilities necessary for adaptation to as well as shaping and selection of any environment context.”

Sternberg (1997)

“Intelligence is the sum total of all cognitive processes. It entails planning, coding of information and attention, as well as arousal.”

J.P. Das (2004)

2. Nature of Intelligence

On the basis of the different definitions given by Psychologists, the following is the nature of intelligence

I. Cognitive Differences : Sum total of mental powers

Intelligence is a sum total of different cognitive processes. It includes mental processes like reasoning, understanding, imagination, decision making etc. So we can say that intelligence is a global mental ability.

II. Ability to think abstractly : Intelligence means to be able to think abstractly. Abstract reasoning or thinking is such a mental ability that with its help an individual can easily understand verbal, mathematical and scientific rules. Certain words like justice, honesty, nobility can not be put in a concrete way or in the form of a figure. So intelligence is the ability to make one understand the meaning of such abstract words.

III. Ability to solve problems : An intelligent individual by his insight can find solution for his problem. He can also take help of past experiences in finding solution for a problem. Practice, training and experience can help in bringing a change in behaviour in an effective manner.

IV. Setting up goals and capacity to make decision

Because of intelligence an individual can have goal oriented behaviour. Realistic goals can be set up by the individual by properly evaluating the situations, by reasoning effectively and in making proper decisions related to his daily work.

V. Helps to make adjustment with environment

With the help of intelligence, we can understand our environment correctly and can select our behaviour which is appropriate to the requirements of the situation.

3. Normal Probability Curve:

Intelligence means ability to gain knowledge solve problems and do abstract reasoning because of learning and understanding. We can observe individual differences in measurement of intelligence. For measuring intelligence, Psychologist William Stern in 1912 has given the concept of intelligent quotient

IQ which is as follows :

$$\text{IQ (Intelligence Quotient)} = \frac{\text{MA (Mental Age)}}{\text{CA (Chronological Age)}} \times 100$$

Levels of intelligence can be known on the basis of intelligence quotient. Terman was the first one to give classification of intelligence.

What is the level of intelligence in general population can be studied on the basis of intelligence test. On the basis of different studies done by psychologist, we get the following curve which is “bell shaped”.

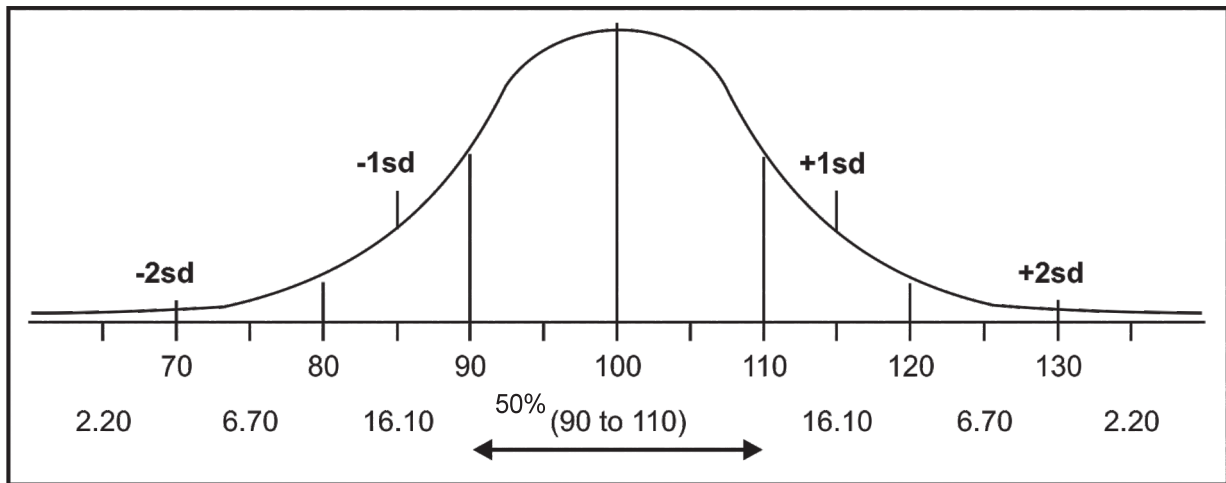


Figure 3.1 : Normal Probability Curve of Intelligence

In general population, we find differences in the level of intelligence which is classified on the basis of their intelligence quotient which is a bell shaped curve. This curve is also called as normal probability curve of intelligence. As per the above curve it is observed that majority of the people in the society possess an average intelligence. 50% of the general population come under average intelligence (90 to 110). Whereas the population of dull normal or bright normal is quite less. Mentally challenged and gifted or superior intelligence population is just 2.2%. Distribution of IQ scores is given in table 3.2.

Contemporary Approaches to Intelligence

Intelligence is a sum total of different cognitive processes. An individual adapts or makes adjustment with his environment on the basis of his intelligence capacity. Intelligence is inter-related. Various studies have been done by Psychologists on its nature, measurement, development and the way it works. Different psychologists have tried to study intelligence in depth and then given their views in the form of the following approaches.

The following are the contemporary approaches to intelligence :

1. Spearman's two factor theory
2. Sternberg's Triarchic theory
3. Guilford's three Dimensional theory
4. Gardner's theory of multiple intelligence
5. J. P. Das PASS theory

Now we will get detailed information about these approaches.

1. Spearman's two factor theory

British Psychologist Charles Spearman in 1904 presented the principle of nature and power of intelligence. It is known as "Two factor theory".

According to Spearman intelligence is based on two factors :

- I. General intelligence
- II. Special intelligence

General intelligence is known as G- Factor and special intelligence is known as S- Factor. The cognitive abilities or intelligence in an individual is the result of G – factor and S- Factor. Entire level of intelligence is the sum total of G – factor and S – Factor. Both have their specific characteristics which are as follows –

- **G - Factor general characteristics :**

- It is inborn ability.
- It is general mental power or energy.
- it is consistent.
- There are individual differences observed in G – factor.
- This ability is used in all the daily activities.
- Individual who have high G – factor are more successful in life.

- **S – Factor general characteristics :**

- This factor is not inborn, hence it is learned.
- It is obtained from the environment and it is a learned ability.
- In one individual, various activities differences have been observed in S- factor.
- Differences are observed in the S – Factor of any one individual and their degree is also different. All the special abilities are not of the same level like language ability, mathematical ability are not same.
- With education and training, change can be brought in it to a certain extent.

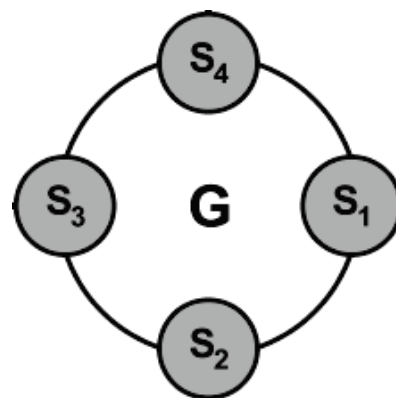
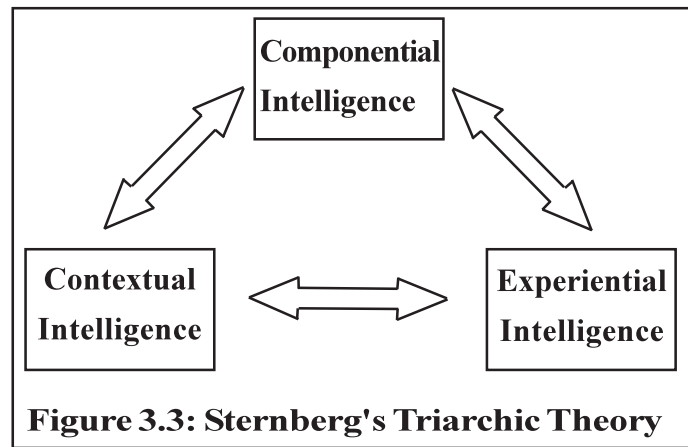


Figure 3.2 : Spearman's Two factor Theory

2. Sternberg's Triarchic Theory

Robert Sternberg in 1985 gave the theory of intelligence. According to him intelligence in practical environment in an individual's life is the most central mental activity. A person by using his mental ability tries to select factors from the external environment, likes it to make adequate use of it than is able to achieve success in life. After



1990, Sternberg changed the name of his theory and called it "Theory of successful intelligence."

According to him, three aspects have to be kept in mind in order to understand intelligence.

- I. Componential intelligence
- II. Experiential intelligence
- III. Contextual intelligence

I. Componential Intelligence: In this type of intelligence abstract and analytical thinking is possible. It is also called as Analytical intelligence. Various cognitive aspects like analysis, Critique, Comparison, Evaluation, Assessment, Reasoning etc are part of componential intelligence.

II. Experiential Intelligence: In this type of intelligence, there is the ability to combine factors or elements to create new thoughts, innovative creations and ideas, insight and also be able to solve problems by accumulating facts. It is also called creative intelligence because it has got the ability to go beyond the given data, generate new interesting ideas. People who are creative and involved in fundamental modifications are likely to have high experiential intelligence.

III. Contextual Intelligence: A person with high contextual intelligence can rapidly adopt to any situation or environment (social, economical, emotional, cultural etc.) in his practical life and can skillfully find a solution to the problem. In this type of intelligence an individual tries to overcome his weakness and has the ability to bring change in the situation by making optimum use of the environment. It is also known as practical intelligence people with high contextual intelligence have more practical knowledge.

3. Three dimensional theory of Guilford:

J. P. Guilford criticised Spearman's two factor theory and said that intelligence is made of two factors only but it is a combination from many factors together. Each factor represents a specific mental ability and is also independent of each other. So it can be said that intelligence is a combination of many factors. e.g, all the parts of the body and organs are different from each other in their look and functions but they have specific functions too. Yet their coordination and joint functioning in the body give rise to different body processes.

The theory given by Guilford to understand intelligence is called three dimensional theory. According to him the different factors of intelligence can be grouped in three dimensions :

1. Operation
2. Content
3. Product

According to Guilford, an individual’s mental processes have got the central place in operations. Mainly five mental abilities are included in it. Evaluation, convergent thinking, divergent thinking, memory and cognition.

In content he has included five aspects – Visual, Auditory, Symbolic, Semantic and Behavioural.

Output, magnitude – result or product are all interrelated. They are distributed into six parts :- Units, Classes, Relations, Systems, Transformation, Implications.

Guilford's theory of intelligence is three dimensional but there is inclusion of many factors in it. According to him there are 150 factors in intelligence.

$\begin{aligned} \text{Factors in intelligence.} &= \text{Operations} \times \text{Content} \times \text{Product} \\ &= 5 \quad \times \quad 5 \quad \times \quad 6 \\ &= 150 \end{aligned}$
--

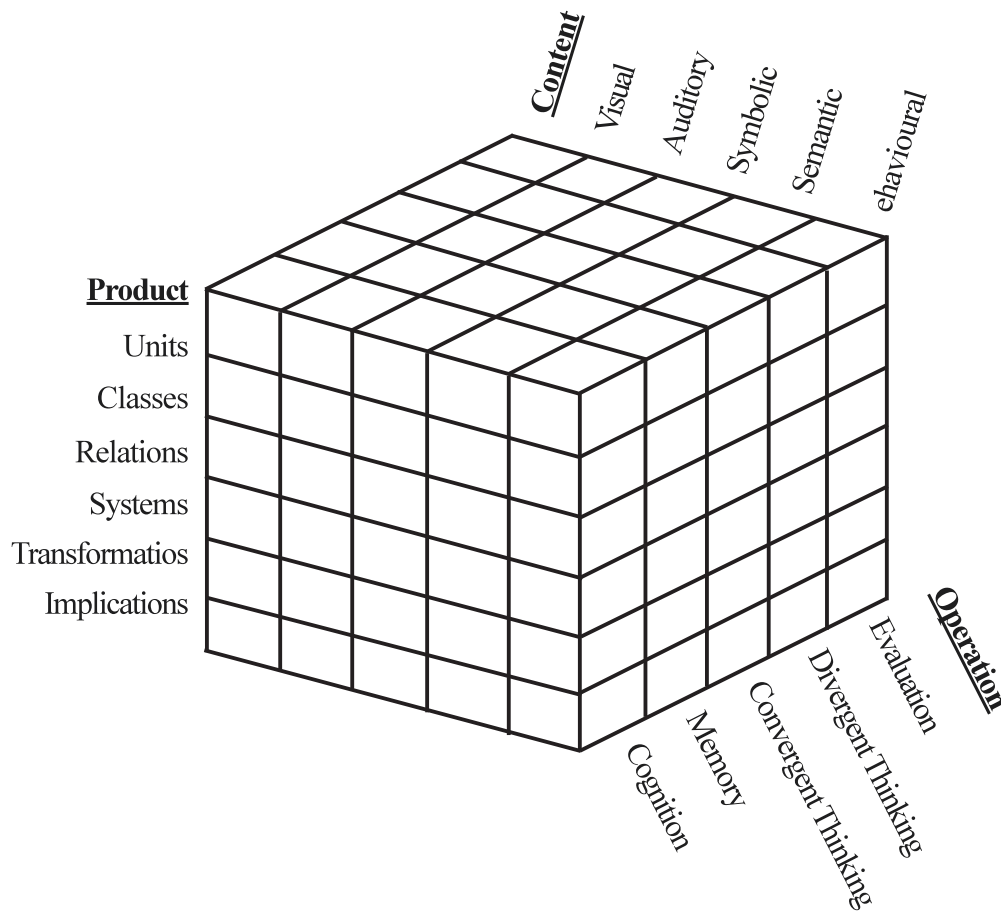


Figure 3.4 : Guilford’s Three Dimensional Theory

4. Gardner's Theory of Multiple Intelligence

Howard Gardner in 1983 gave his views on intelligence. According to him intelligence is not a single measure of abilities. There are different factors in intelligence. The theory which he has given to understand intelligence is called "Theory of multiple intelligence."

According to Gardner, intelligence, plays an important role in making an individual, understand his environment and also develop his perspective. He has suggested eight types of intelligence. In any one individual, all these eight types are not seen in equal degree. A person uses the type of intelligence which is appropriate to the situation or context which has arisen before him. e.g, A student when in class uses his linguistic intelligence, logical – mathematical, intelligence, when he is on the ground he uses bodily-kinesthetic intelligence or to understand teachers-elders-ideal person etc. interpersonal intelligence is used.

The following are the eight types of intelligence suggested by Gardner :

I. Linguistic Intelligence : This type of intelligence is used in tasks like speaking, listening, reading, writing, understanding complexity of language etc. It is expressed in the work of writers, literary figures, salesmen, members of editorial staff of newspaper, magazines, announcers etc.

II. Logical – Mathematical Intelligence: This type of intelligence is expressed in reasoning and arguments, use of signals and symbols and in computational work. Such type of intelligence is higher among logicians, advocates, judges, detectives, scientists, statisticians and accountants.

III. Spatial Intelligence : Such intelligence is used in forming, modifying and using mental images, also making movements in three dimensions of space viz. left – right front – back, up- down. Drivers of train and automobiles, navigators of ship, aircraft pilots, engineers, architects, sculptors, painters, surgeons etc. have a higher level of spatial intelligence.

IV. Bodily – kinesthetic Intelligence: Such intelligence is needed for making simultaneous and compatible movements of hands, feet, head, torso, fingers etc. and for developing their dexterity. So it is essential for sportsmen, craftsman, surgeons, dancers, actors etc.

V. Interpersonal Intelligence : This intelligence is used in understanding the nature, habits, likes, dislikes, attitudes, feelings, emotions, motives and personality of other people. Therefore teachers, trainers, salesman, politicians, social workers, priests etc. have it to a greater degree.

VI. Musical Intelligence : Such intelligence is used in identifying and discovering the volume, pitch and special tones of various singers or musical instruments. Singers, players of musical instruments, music composers, conductors, directors and appreciator of music have it to a higher degree.

VII. Intrapersonal Intelligence : With the help of this type of intelligence a person can achieve self – understanding about feelings, emotions, aptitudes, attitudes, prejudices, beliefs etc. It is useful for developing self – insight and self – actualization.

VIII. Naturalistic Intelligence:

This type of intelligence is used in understating various natural objects, animal species, plants and trees and the variety of natural phenomena. Farmers, breeders, animal keepers, hunters, adventurers, jungle travellers, forest personnel, students of botany and zoology possess such intelligence in higher degrees.

5. PASS Theory of J. P. Das

Jagannath Prasad Das (J. P. Das) and his associates have opposed the theory of G – Factor. According to experimental studies and research experiences, he presented the view that the formation of the human skulls and the processes in it play an important role for cognitive abilities. He has supported the views of Neuropsychologist for intelligence. According to them the structure of the brain is extraordinary. The centres of the brain independently perform a particular mental activity. Yet all these centers in the brain are functionally interrelated.

Students, in Std. XI we have studied that brain is divided into two hemispheres. They are called the left hemisphere and the right hemisphere. Visual, auditory, olfactory etc. centres are situated in a specific part of the brain. If the specific part of the brain is damaged than it will create an obstacle in doing the mental activity associated with it. For example suppose a specific part or centre of the left hemisphere of the brain is damaged than the individual will have problem in language speaking and writing.

J. P. Das and his associates strongly believed that the extra ordinary structure of the brain is closely interrelated with cognitive ability of an individual. The theory presented by him is called as “PASS Theory”. In this theory four main cognitive abilities are included. They are

P - Planning

A - Attention Arousal

S - Simultaneous processing

S - Successive processing

I. Planning: With the help of cognitive ability we can decide how to solve our problems and than also change our behaviour accordingly. It also helps in setting up goals, evaluation of the result, use of responses or feedback and so on. For this type of cognitive activity, the frontal lobe of the brain is responsible.

II. Attention Arousal: In this type of cognitive ability an individual decides on which stimulus from the environment he will pay attention and which stimulus he will ignore. People who suffer from ADD ie. attention deficit disorder are deficient in this type of cognitive ability. Attention and excitment are related to brain stem and thalamus in the brain.

III. Simultaneous processing: In this cognitive ability, different stimulus are joined together to form one complete situation. The whole process takes place at the same time. For understanding language this ability is inevitable. For eg. What is my mother’s father’s son called as? (Ans: Maternal Uncle) this neural activities occur in the occipital lobe and parietal lobe of the brain.

IV. Successive Processing: The ability to process the stimulus one after another. This ability is specially seen while reading a printed sentence, we attend to the words in succession. Even while writing a sentence, we write one word after another. For this frontal lobe and temporal lobe play an important role.

Measurement of intelligence : Intelligence Tests & Classification

1. Measurement of intelligence – Explanation of formula: Intelligence is the most extraordinary ability of an individual. After studying the various theories of intelligence now let us understand about measurement of intelligence; it is important to understand mental age and "Intelligent Quotient" for understanding measurement of intelligence.

I. Mental Age : “Mental age of a person is his level of mental development relative to the environment in which he lives”.

Let us understand it with an example. The child whose intelligence is to be measured, its age by birth has to be considered and then the test should be selected. To decide the mental age the number of correct answers given in a test are taken into consideration. For each correct answer to a test item, two months mental age is assigned. For every test there are six questions. While giving the test, if the child is able to give all correct answers to the test of the higher age than his age. Then that should be considered the basic age.

From the table given below let us understand with example of Stanford Binet test.

Table 3.1 Measurement of Mental Age as Per Stanford – Binet Test

Age of the child	Total Questions in Test	No of right answers given	Each correct answer is given two months	Total MA
Intelligence test of 8 yrs. All questions are correct base year.	06	$08 \times 6 = 48$	48×02	96
9 yrs	06	03	03×02	06
10 yrs	06	02	02×02	04
11 yrs	06	01	01×02	02
12 yrs	06	No correct answers	00	00
			Total Mental Age	108

The child's chronological age is then compared with its mental age. A bright child's mental age is higher than his chronological age. A retarded child's mental age is lower than his chronological age.

● **Intelligence Quotient – IQ**

The concept of intelligent quotient is given by Stern. An individual's level of intelligence can be

known from his IQ score. The formula for finding IQ is as follows :

$$\text{Intelligence Quotient (IQ)} = \frac{\text{Mental Age (MA)}}{\text{Chronological Age (CA)}} \times 100$$

For example, a child's chronological age is 7 years and 6 months i.e. 90 months where as its mental age is 108 months. Now lets calculate with the help of the above formula.

$$\text{IQ} = \frac{\text{MA}}{\text{CA}} \times 100 = \frac{108 (\text{MA})}{90 (\text{CA})} \times 100 = 120$$

But now days with modern technology, there is no need to find mental age yet the Intelligence Quotient (IQ) of the individual can be known.

2. Intelligence Test :

The tests that are used to measure intelligence are called intelligence test. IQ can be measured by either an individual test or a group test. An intelligence test which can be given to only a single person at a time is called individual test of intelligence. Test which can be administered to hundreds of individuals simultaneously is called a group test. IQ can also be measured with either verbal or non verbal test. A test containing only written questions to which a person has to give written answers is called a verbal test. A test in which a picture or a diagram is presented or motor task is allotted, the person is told to do something specific, where use of words is minimal is called non-verbal test or performance test of intelligence.

Let us now gain knowledge about some of the important tests. :

I. Stanford – Binet Intelligence test :

This test is basically used to measure the intelligence of children. Binet and Simon developed the first individual test of intelligence in French in 1905. Professor Terman of Stanford University of U.S. 1916 prepared English adaptation of Binet – Simon and published it as Stanford – Binet test. It is also called as (SBIS) Stanford – Binet Intelligence Scale.. The 1916 test was revised in 1937,1960,1973 and 1986.

In earlier versions only a general composite score was obtained to get IQ. In 1986 version apart from overall score separate scores are obtained for verbal reasoning quantitative reasoning abstract/visual reasoning and short term memory. This test is used world wide to measure intelligence of children upto 18 years of age.

II. Wechsler Scales:

Along with Stanford – Binet test, Wechsler intelligence scales are also used to measure individual intelligence. It is an individual test. This test measures intelligence from children to adults. Different tests have been prepared for different age groups.

(a) WAIS – Wechsler Adults Intelligence Scale – This test is used for age group 16 years to 64 years. In this test we can get overall score and even verbal and performance score.

The Adult Intelligence Scale has got 11 subtests out of which six are verbal tests and five performance tests. The verbal tests were of Information, Comprehension, Arithmetic, Digit Span,

Similarities and Vocabulary. The performance subtests were of picture arrangement, picture completion, block design, object assembly and digit symbol. In 1981, a revised form of WAIS was released which is today known as WAIS – R.

(b)WISC – Wechsler intelligence scale for children. It tests intelligence of children between 6 to 16 years of age.

(c) WPPSI – Wechsler preschool and primary scale for intelligence. It is used for testing children of 4 to 6.5 years of age. They give score of overall intelligence and also of verbal as well as performance score.

Thus, we can say the Wechsler Intelligence scale is a great contribution to measurement of intelligence.

III. Raven’s Intelligence Test

Raven’s Intelligence test is free from the effects of language and culture because it is a non verbal group test typically used in educational fields. It is also called as Raven’s Progressive Matrices (RPM). In 1936, John, C. Raven prepared this test.

It is basically used in measuring abstract reasoning. It is the most common and popular test administered to groups ranging from 5 years olds to the adults . It is made of 60 multiple choice questions, listed in order of difficulty. In each test item, the subject is asked to identify the missing element that completes a pattern or a figure. Many patterns are presented in the form of a 6 x 6, 4 x 4, 3 x 3, 2 x 2 matrix. For people with different abilities, different types of tests have been prepared. The following figure gives us the idea about the test.

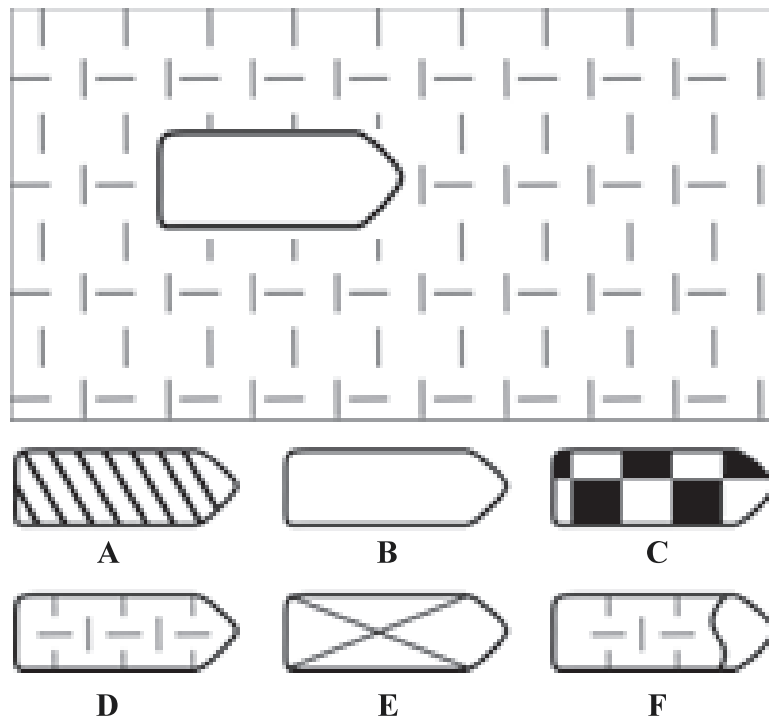


Figure 3.5 : An example of Raven’s Intelligence Test

In this way Raven’s test presents test items in order from simple to complex.

IV. Kaufman Intelligence Test

American Psychologist Professor Alan. S. Kaufman became world famous because of his intelligence test. He developed the original Kaufman Assessment Battery for children (KABC) and several other psychological and educational tests. He has also developed Kaufman Brief Intelligence test (K – BIT) and also prepared its second edition which is very important. For Adults measurement of intelligence he has prepared Kaufman Adolescent and Adult. Intelligence test (KAIT). The revised edition of his tests was published in 2004-2005.

Along with intelligence test, Kaufman has also prepared test of educational achievement.

3. Distribution of IQ

I. Table of mentally challenged to gifted: Individual difference are observed in IQ scores. Generally you will find that about 2 percent of people in the general population have an IQ above 130. Another 2 percent have IQ below 70. Descriptive labels and proportion in population for different IQ levels are as follows :

Table 3.2 : Distribution of IQ Score

Range of IQ	Description	% in Gen. Population
Below 70	Mentally challenged	2.20
70 to 79	Borderline	6.70
80 to 89	Dull Normal	16.10
90 to 100	Average	50.00
110 to 119	Bright Normal	16.10
120 to 130	Superior	6.70
130 & above	Gifted Intelligence	2.20

As per the above table, there is a possibility of change in intelligence depending upon time, place and situation. Mental retardation is the cause of intellectual deficiency.

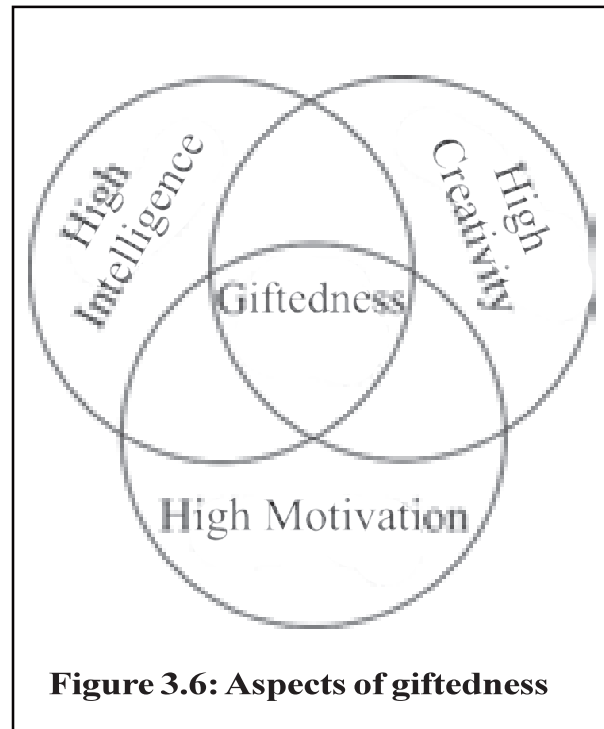
II. Gifted:

(a) Nature and Identification of Giftedness

We use words like genius, talented, extraordinary etc. for such gifted children. A person having very high or exceptional mental ability through heredity is called a gifted person. Many psychologists have given the definition of gifted child. Such talent of (gifted ness) can be seen in all people from different socio-economic strata and cultural groups.

In present time, giftedness is defined as superior ability in any worth while line of human endeavour, including moral, physical, emotional, cognitive, social, intellectual or aesthetic life. Terman in 1925 began a study of such gifted people. Their high cognitive ability was measured by such intelligence tests.

According to Joseph Renzulli, giftedness depends on high intelligence high creativity and high motivation.



Merely having cognitive abilities is not giftedness but the nature and organization of abilities compose giftedness. In comparison to others such children are highly exceptional. They have high self-efficacy and self-esteem. Such gifted people work more hard to get name and fame. This is a natural gift which is found in all socio-economic groups of the world.

- **Identifying the gifted person**

A gifted person can be found out by various means. At present, intelligence tests and achievement tests are more frequently used for that purpose. At some places, a specific IQ score is taken as a base, eg. a person with IQ above 130 is considered to be a gifted person.

Recently the following types of data are taken as indicators of giftedness :

- His IQ in a individual or group test of intelligence.
- Teacher's judgment about his abilities and grades given in school.
- Parent's judgment and evaluation through interview.
- Appraisal of his social and emotional maturity.

To recognize gifted children other factors like adjustment, his ambitions, self-evaluation, strength of motive etc. are also informative.

(b) Characteristics of gifted children

Gifted children have high level of cognitive intelligence and extraordinary mental capacity. Some of the major characteristics are as follows :

- High level of self-pride and self-efficacy.

- They are creative and innovative.
- They have good insight to solve problems.
- Ability to transfer skills to new problems and solve it.
- They are more matured and developed than their own age group people.
- They have creativity in fields like writing, music, art, design etc.
- High self– efficacy, can evaluate their own work by reasoning.
- Intrinsically motivated to achieve and get pleasure from work.
- They have high self esteem because of high level of intelligence.
- They are introverted and so prefer solitude.

III. Nature, Characteristics and Types of Intellectual Deficiency

Intellectual Deficiency is called as mental retardation. As intelligence of such children is very low, they face a variety of additional challengers from the environment.

According to American Psychiatric Association (APA – 1968) mental retardation is defined as follows – “An intelligence test performance which is two or more standard deviation, below the mean accompanied by limitations in adaptive functioning such as failure to cope with the common tasks of daily living appropriate to one’s age and situation”.

Normally, People with below 70 IQ cannot cope with daily activities of life and so are considered as retarded. They are different from normal individuals.

The American Association on mental retardation and the American Psychiatric Association have developed norms and diagnostic schemes to find the level of mental retardation.

(I) Such mental deficiency has four levels :

- (A) Mild : A mildly deficient person has IQ between 50 and 69.
- (B) Moderate : A moderately deficient person has IQ between 35 and 49.
- (C) Severe : A severely deficient – person has IQ between 20 and 34.
- (D) Profound : A profoundly deficient person has IQ below 20.

(II) Characteristics of Intellectual Deficiency

Characteristics of the persons of above four types are as follows :

Table : 3.3 Levels of intellectual deficiency

Type of Function	Mild 50-69	Moderate 35-49	Severe 20-34	Profound Below 20
Selfhelp skills	Feeds and dresses himself. Cares for own toilet needs.	Has difficulties. Needs training. Can learn adequate self help skills.	Partial skills Some can care for limited personal needs.	No Skills

Speech Communi- cation	Is receptive, ex- pressive. Lan- guage is adequate. Understands com- munication.	Is receptive, expressive language is adequate. Has problems in speech.	Good receptive language, limited expressive language.	Limited receptive language, poor expressive language.
Academic skill	In optimal learning environment, can go upto third to sixth grade (Std).	In optimal environ- ment can go upto first or second grade std. Few academic skills	No academic skills	No academic skills
Social skills	Can learn to adjust quickly. Has friends.	Capable of making friends, but has diffi- culty in may social situations.	Cannot make friends. No social interoactions.	Nosocial interactions, not capable of having real friends.
Vocational adjustment	Can hold a job. Is competitive to semi – competitive. Pri- marily can do un- skilled work.	Can work in a shel- tered environment. He usually needs consistent supervi- sion.	Generally, no employ- ment Usually needs constant care.	Not possible
Adult living	Usually marries, has children. Needs help during stress.	Usually does not marry or have chil- dren, is dependent.	No marriage or children. Is always dependent on others. Life span is shorter.	Not possible

The IQ ranges mentioned above for various levels of deficiency are not to be taken rigidly. How does the individual perform in his daily life is also important in determining whether he is mildly, moderately, or severely/ profoundly deficient in intelligence. The final decision about level of retardation is based more on a person's skill in functioning in daily life rather than on IQ range.

Exercises

SECTION - A

Choose the correct option from the given below and rewrite the answer:

- Who has given the formula for measurement of intelligence?
(A) Binet (B) Wechsler (C) Stern (D) Raven
- Who has given the three dimensional theory of intelligence ?
(A) Thurston (B) Guilford (C) Spearman (D) Gardner
- Which lobe of the brain performs the cognitive activity of "Organization"?
(A) Temporal (B) Occipital (C) Parietal (D) Hypothalamus
- Who was the psychologist who first tried to define intelligence on the basis of individual differences?
(A) Ebbinghaus (B) Terman (C) Binet (D) J. P. Das

5. Under which IQ score do average individual come ?
(A) 120 to 130 (B) 90 to 109 (C) 70 to 79 (D) 80 to 89
6. While calculating mental age, how many months are allotted to each correct answer?
(A) two (B) six (C) three (D) four
7. Who first presented in English the Stanford Binet test of intelligence?
(A) Binet (B) Prof. Terman (C) Simon (D) Wechsler
8. What was the IQ score of Mentally challenged children?
(A) 130 & above (B) Below 70 (C) 80 to 89 (D) 110 to 119
9. When was Raven's intelligence test created?
(A) 1920 (B) 1940 (C) 1936 (D) 1967
10. Who started the study on gifted individuals?
(A) Simon (B) Renzulli (C) Terman (D) Raven

SECTION - B

Answer the following questions in one or two sentences each :

1. By which name the graph of classification of IQ in general population is known?
2. Who gave the two factor theory of intelligence?
3. In which type of intelligence there is power of abstract and analytical thinking?
4. What is Guilford's theory also known as?
5. Who gave the theory of intelligence on the viewpoint of Neuropsychologist?
6. Which other name is intelligence quotient known as?
7. What is individual intelligence test?
8. What is a verbal test?
9. Give the full form of RPM.
10. What is the IQ score of gifted children?

SECTION - C

Answer the following in about 30 words :

1. State the factors and mental characteristics of Guilford's three dimensional theory.
2. What is the meaning of the word intelligence?
3. Explain what is interpersonal intelligence?
4. Which are the contemporaries approaches to study intelligence?
5. Explain what is experiential intelligence?

6. Define mental age.
7. Explain with example formula of IQ.
8. Give information about Wechsler intelligence scale for children.
9. What is the full name of K – BIT? What is the usefulness of this test?
10. According to Renzulli, giftedness depends upon three aspects? Explain.

SECTION - D

Answer the following in about 50 words :

1. Explain the normal probability curve of intelligence.
2. State the three aspects of Sternberg's triarchic theory and explain any one.
3. State the characteristics of intelligence as per Gardner and explain linguistic and spatial intelligence.
4. Explain musical and naturalistic intelligence.
5. State the table of distribution of IQ score in general population. .
6. Explain how mental age is calculated.
7. Explain Wechsler Adult Intelligence Scale.
8. Which techniques can help to recognise gifted individuals in today's world?
9. Explain any two types of mental deficiency.
10. How are the academic and social skills of average intelligent individuals?

SECTION - E

Answer the following in about 80 words :

1. Explain the characteristics of giftedness.
2. Explain Gardner's theory of multiple intelligence.
3. Give any one definition of intelligence and explain the nature of intelligence.
4. Explain the general characteristics of G and S factor of Spearman's two factor theory.
5. Explain J.P.Das "PASS Theory".



Man is a social animal and so from birth till death, he learns from his experiences in various social situations and changes that take place. We hold a variety of attitudes in social life which are towards friends, parents, relatives, social organizations, literature, culture etc. With wide variety of experiences, we tend to get idea about different individuals, objects, situation or circumstances. In Psychological language it can be called Attitude. Attitude gives shape to human behaviour. We tend to have either favourable or unfavourable attitudes depending upon our experiences. So likes and dislikes also play an important role in formation of Attitude. It is as per our like and dislikes that we show, our behaviour towards certain people, objects or situations.

Do you like this vegetable? Do you like to roam about with your friends? Do you respect your elders? Do you like to go to school? When such questions have to be answered in either 'Yes' or 'No', we can know the attitude and its direction. Normally attitude is either positive or negative. Attitudes can be overt or covert and it can be seen in our language, behavior and relationship with others. Social Psychology is an independent branch of Psychology. Where man's social behaviour is studied in-depth. Attitude is one of the important factor for study of social behaviour of an individual as per Social Psychology.

What is Attitude ? How is it formed or developed? Can it be changed or not ? etc. If we have the answers to the above questions then we can understand the attitude of other people and behave accordingly, to help in creating a better process of social organization.

A firm negative thought is Prejudice. Prejudice takes place in opposition to attitude and always creates a negative effect. Prejudice leaves a lasting impression on the behaviour of the individual as well as the people living in the society. Prejudice is the cause of social conflicts and social discrimination. It is important task for the psychologists to free the society from prejudices and make it more organized and harmonious. Hence it is necessary to understand to a few strategies of reducing prejudices.

Attitude

As we have seen earlier that Attitude gives directions to human behaviour and help in living an adaptive and adjustive life. It is important to understand the nature and meaning of Attitude.

1. Meaning and Nature of Attitude :

“Attitude is a consistent, learned and impulsive response or behaviour towards a specific, object, individual or a situation.

B. Kuppuswamy (Indian Psychologist)

“Attitude is a mental and neural state of readiness to respond to a specific object, individual or situation with which it is related”.

Gordon Allport

“When people evaluate any aspect of their social world like objects, thoughts, events, individuals, social groups either in a positive or negative way and respond to it then it is called Attitude”. **Baron & Byrne(1996)**

“Attitude represents fundamental factor of all facets of thought”.

Ito & Caciyoptho(1999)

Every society has got wide variety of traditions, values, culture, morals, thinking, life style etc. which bring about a change in attitude and behaviour time and again. They also change the human values and goals. On the basis of the above definitions, few points become clear about attitude –

- Attitude is a psychophysical behaviour of the individual arising out of mental cognition.
- Attitude gives directions to human behaviour and leads him/her to give a response.
- As every individual possess different attitudes, their reaction to them is also different.

Nature of Attitude

To understand attitude it is important to understand its nature. The following points are :

(I) Attitude is not inborn but a learned reaction : Attitudes are formed on the basis of the way in which an individual is brought up in the family, school, society and culture. e.g, if a child tells the mother that he does not want to eat vegetable then the mother gives other optional food items to the child to eat. So whenever the child shows his dislike towards a particular thing, object, mother gives him other options to choose from, which the child likes or desires. In the some way attitudes can also be formed in children regarding T.V. programmes, cartoon serials etc.

(II) Attitudes are relatively permanent: Attitudes formed on the basis of experiences are stable, permanent and bring long term change in the behaviour and so sometimes are difficult to change also. As per the experiment, by Norman – Silver, its proved that Attitudes once formed do not change that easily specially in social traditions, customs etc. For e.g, or years together many thinkers, social reformers, religious leaders etc. have tried to eradicate caste system, child marriages, untouchability etc. but still many societies are not ready to accept the change and still practice it. We have to keep trying till we can bring awareness and awakening among the people This shows that change in attitude is difficult but not impossible. So we can say that Attitude is permanent.

(III) Attitude is to related to individual or object

Attitude is an individual’s personal reaction or behaviour towards a specific thing or object. They are unique or typical characteristics of a person. As per Allport, Attitude is a mental readiness to respond to a specific object, individual or situation. Attitude encourages an individual to react – either in favour or opposition of an object or thing. e.g, a person who is in favour of semester method in exam will always speak good about it and show how advantageous it is.

(IV) Attitude develops from individual towards group

Just like learning and perception even in Attitude we can see the principle of generalization. Attitudes which are formed on the basis of individual experiences slowly move from individual to the religious group or community to which he belongs and everybody starts reacting in the same way. e.g, many times it has been observed that when a girl from rich family gets married to a boy middle class family, people assume that as she comes from rich family she will not do any work and on the basis of this, they generalize that “Girls of rich family are not good”. If an individual is cheated once or twice by a business man, then the individual generalizes that “All businessman are cheaters”. So Attitudes formed on the basis of individual experiences slowly pass on

from individual to the group to which they belong.

(V) Attitudes are extended to group

Members of the same group usually have similar attitudes. They do not remain only to the individual but the whole group gets affected by it. e.g, Gandhiji's principle of cleanliness and untouchability, was not only his principle but of the whole ashram and all those people who were associated with him. His revolution on "Swadeshi movement" and "Bharat Chhodo" slowly spread all over India and became very strong. So sometimes it can be said that few persons attitudes can be extended to the group.

(VI) Attitudes are purposeful and full of feelings

Most of our attitudes are purposeful and based on feelings. They make an individual behave either in favour or opposition of another group or individual. Generally attitudes are not very firm. e.g, Even after having very positive attitude towards religion, many religious leaders and superstitious people are not ready to accept scientific explanations for religious practices and in the same way people of science background do not accept preaching of religious leaders because they consider them to be superstitious. In this way both groups oppose the views of each other as per their Attitude.

(VII) Attitude show likes and dislikes of an individual

Every individual will have likes or dislikes towards an object or a thing. The way a person thinks, feel or acts is guided in a direction by attitude. An individual likes to be in the company of the people whom he likes and also maintain long term relation with them. Supposing, he dislikes a person then he tries to remain away from him. For eg. a child who does not like to go to school or do homework, will develop dislike towards school, teachers, parents and develop negative attitude towards them.

2. Formation of Attitudes

We have seen from the earlier features that attitude is not inborn or inherited but it is learned by the process of socialization and learning skills. Attitude is formed on the basis of experiences, develops and then becomes firm. Different types of learning methods play an important role in formation of attitude.

(I) Learning Methods which help in attitude formation

(a) Classical conditioning: Conditioning means 'to join or to associate' In this process, a neutral stimulus is associated with an established stimulus response connection. Eg. – In Pavlov's study, food salivation reaction occurs naturally. The reaction of salivation that occurs due to sound of the bell, a substitution for food is called classical conditioning. Due to this type of conditioning many positive attitudes are formed. e.g, when a mother breastfeeds her baby, it experiences satisfaction which is natural. The baby will immediately show happiness on seeing the mother after many such experiences of breastfeeding. The presence of mother is enough to make the child feel happy and so will develop a positive attitude.

(b) Operant Conditioning : In this type of conditioning, those responses which are reinforced become very firm and are repeated. Such attitude will be awarded by teacher, parents, friends etc. This method also helps in controlling behaviour. If a certain attitude is systematically rewarded, the person learns that attitude

and if he is punished for it then he avoids to practice it. Positive reinforcement like praise, reward, etc. help in developing positive attitude while negative reinforcement like punishment, avoidance, shock etc, help in developing negative attitude. Children form many attitude by reward and punishment. e.g, if you praise the child and ask him a favour he will immediately do it but if you scold him than he will refuse to do the favour.

(c) Observational Method: Observation is the main source for emulation. It is not possible to learn emulation without observation children closely observe behaviour of parents, relative and other family members and learn many forms of behaviour. They acquire many new attitudes towards racial groups, neighbour and ideologies by observing behaviour of adults. Acceptance or non-acceptance, like or dislike towards the attitude by the people will help an individual in developing either positive or negative attitude. e.g, A teacher asked a question to a student and if student gives right answer and the teacher praises him in front of the whole class then that student feels happy and the other students are also encouraged to answer. But if the student gives wrong answer and the teacher abuses the child than it creates a negative effect on the mind of the child and also other students. Hence positive or negative attitudes can be developed by observation.

(d) Exemplary behaviour: Man is a social animal and hence majority of his attitudes are formed and developed with his interaction with the social environment. Every individual observes, evaluates and also sees how it is looked upon by the society and then decides whether to practice it or not. Usually every individual evaluates and perceives attitudes of other people in a wide variety of ways but it can be said that only that behaviour is exemplary which is accepted by the society. Many people have father, mother, teacher, religious leaders, social reformers, political leaders, actors etc. as their ideals and they try to emulate their desirable and exemplary behaviour in their daily life. e.g, Gandhiji's simplicity, behaviour, language was always in relation to his principles of truthfulness, determination, his prayers, which all were examples of positive attitude for his followers and they also started developing his attitude. Many great people like Dr. Jai Prakash Narayan, Swami Vivekananda, Dr. A.P.J. Kalam, Amitabh Bachchan, Dr. Ambedaker, Smt. Indira Gandhi, Kalpna Chawla etc. They have become positive ideals of people which reflect in their language, thinking and behaviour.

(II) Factors influencing attitude formation

Attitude provides a direction to human behaviour and so its important to understand attitude. Which factors play an important role in shaping our attitude? How does it develop? etc. are the questions which needs to be answered. During his life cycle individual learns attitude either in covert or overt way. It is also developed through interaction, exchange of thoughts, behaviour evaluation etc. He, in this process accepts the positive ones and rejects the negative ones. The following factors affect attitude formation.

(a) Family

(b) Socialization

(c) Direct personal experience

(d) Effects of mass media

(a) Family : During the entire life span of an individual family plays an important role. Family is a small unit of society but an individual is the smallest unit of a family. Man is a social animal and so for him family life

is very important. The most basic and primary knowledge about socialization can be learned in family. It is through parents and family members that the child has contact with the social world. In family every member has different roles to play as per the age and experience. Every member in the family behaves differently with each other. A human child is mostly influenced by the mothers' behaviour and as per studies human child is more dependent than animal babies. Positive attitude in children are developed by interaction with parents family members and how they respond with love, satisfaction, co – operation, praise etc. In the same way hatred, contempt, malice, jealousy etc. develop negative attitude in children. Often children classify behaviour good or bad on the basis of likes and dislikes practiced by family members. Many times when parents scold the child and grandparents scold the parents for shouting at the child then the child will develop good attitude towards grandparents and bad attitude towards parents. In short, family forms many attitudes of an individual.

(b) Socialization: It is a term used by sociologists which refers to the lifelong process of inheriting and disseminating norms, customs, values, habits and ideologies. It is a process through which social and cultural continuity are attained. Socialization is lifelong learning process. Every society has got different social structure and hence the process of socialization is also different. There can be changes in the process of socialization because of close internal inter action with different cultures, their life styles, customs, traditions etc. Which also affect the socialization process in children. After family the other institutions that affect socialization are school, culture, religion, caste etc. Children who are brought up in family who have strict and rigid religious practices, have positive attitude towards religion. Language, province, geographical locations all help in socialization. eg. a Gujarati will eat their stable food, Punjabi will give more importance to dairy products, in south India more usage of coconut and rice etc. suggest lifestyle and habit as per geographical location. How to respect elders, welcome the guest, clothing style etc. are developed by the process of socialization.

(c) Direct personal experience: Experience is the best teacher. Every individual learns from experiences. Individual's experiences are specific and their understanding is also based on the perspective of the individual. Many people in the same situation react differently because their experience, past knowledge, education, understanding is all different. e.g, a very strict teacher has helped any student in personal way by taking care and guiding her then the student will have positive attitude towards the teacher in comparison to other students because of her positive direct personal experience.

(d) Effects of Mass – media : Its said that 20th century was science era and 21st century is technology era. In this modern era science and technology both have become comprehensive. They both help in conveying information and entertainment faster which has changed the life of human beings all over the world. In ancient times, people had to go personally to give a message or a letter which was very time consuming where as in today's modern world newspapers, T.V. mobile, internet, whats app, twitter, facebook, google etc. are important media of communication which are quick and authentic. An event taking place anywhere him the world can reach the people every where within minutes and we also get their response immediately. There was live telecast of Uttarakhand floods on television and the people saw how the military aided those who were affected by the floods. Seeing this the attitude of the people became more firm and positive towards the army. Mass media has become important source in changing and forming attitudes of the people.

Attitudes give direction to behaviour and they help in the process of social development. Attitudes are learned and they keep on developing so we should avoid negative attitudes and have more positive attitudes for harmonious living in social world.

3. Techniques of attitude change

Earlier in the lesson we have seen that attitudes are learned. Experience, education, socialization, group, propogenda etc. help to develop attitude. Many negative attitudes are harmful for the society, individual and also the world. Such attitudes are difficult to change but not impossible. Family, parents, school, teachers, religious leaders, political leaders, newspapers, television etc. help in bringing a change in attitude:

The following are the techniques which bring change in attitude :

- | | |
|-------------------------|----------------|
| (I) Education | (II) Publicity |
| (III) Group discussions | (IV) Norms |

Let us understand the above techniques in detail :

(I) Education: We all know that learning is a relatively permanent change in behaviour arising out of experience, training and practice. Its means that education can bring change in behaviour which can be either covert or overt learning in school/college or learning by socialization can also bring behavioural changes in the individual. A traditional farmer through education and learning changes his method of farming by using modern technology and also develops positive attitude towards it. In school/college parents have developed positive attitude for activities for all round development of their children and not just bookish knowledge.

(II) Publicity : Publicity, propogenda, advertisement etc are all effective means for learning. Mass media also plays an important role. Who does the publicity? In which group it is done? Which medium is used ? All these questions affect attitude. Tag lines used in advertisements also become important in bringing change in attitude. Before hundred years, 90% of the people, were dependent on agriculture in India and at that time it was believed that “Children are assets” but slowly the increasing population and its negative effects changed the belief of the people to “we two, our two”.

(III) Group discussion : Communication and interaction are two important features of group discussion and they help in changing attitude of the people. In development of attitude group membership, group activity, status all play an important role. Two groups with opposite attitudes, can by interaction and discussions bring change in their attitude towards each other. In 1943, Newcomb was successful in changing the attitude of rigid college going girls. Management and employees can also solve their problems by open discussions had interactions. India has been the victim of terrorism from last many years. By discussing this problem with various leaders of the world, we have been able to get their attention towards its harmful effects. They too,

have joined with India to fight terrorism. So by group discussion we have been able to change the attitude of the world towards terrorism.

(IV) Norms : Many times individual is not ready to change attitude even by experience, understanding or discussion. At that time norms or rules are effective tools to bring change in attitude. In a country like India even today ancient and traditional customs are practiced which are not good. In such situations norms, laws, rules etc. can help to bring a change. There were many temples in India where ladies were not allowed to go but in 2016 supreme court of India gave the verdict that as per law men and women have equal right to worship. So women were allowed and it was accepted by all. So sometimes norms or laws can also help in changing attitude of the people.

Still there are so many negative attitudes prevalent in the social world, which need to be changed. For that psychologisits, social reformers, teachers, political leaders etc. should take help of the Judicial system.

4. Obstacles in Attitude change : We have seen in the chapter that how important it is to remove negative attitudes from the mind of the people for the betterment of individual, society or nation. Even after trying very hard, many times it becomes difficult to change the attitude. There are many obstacles in attitude change and they are as follows :

(I) Strength

(II) Complexity

(III) Importance

(IV) Inter connectedness

(V) Functionality

(I) Strength : Attitudes which are there in an individual for a long time cannot be changed easily as with time they become firm and stable. Extremely strong attitudes are difficult to change e.g, Though we are influenced by western food habits, we cannot forget our traditional ones neither are able to change them. In America still there is racial discrimination between the Negroes and Whites, In Asia India and Pakistan people have not been able to change their attitude towards each other because they are very strong.

(II) Complexity : An attitude is formed by multiple factors. It is said that development of attitude is a complex process and formed by a large number of factors and so is difficult to change. A simple attitude is easier to change than a complex one Social reformers have tried hard to abolish social customs like child marriages and dowry system but have not been successful because of its social complexity, and such customs are still prevalent in the society.

(III) Importance : In every human being's life, different things are important at different point of time. An individual behaves as per the importance of the situation. When attitudes are related to life goals their importance increases and they are difficult to change. For eg. suppose for an individual his friend has a very important place in his life then in such situations, he over looks all the negative aspects and continues to be friends with him.

(IV) Interconnectedness : Many attitudes are complex as well as interconnected. An attitude that is closely connected with another attitude becomes more balanced. Such connections strengthens each of these attitudes. Connected attitudes are more difficult to modify. For eg. a boy or a girl belong to the some religion and are in love, want to get married, then they are made to understand that love marriages are not acceptable and so it should not be practiced. But the boy as well as the girl are firm about their attitude towards love marriage as all factors are in favour of it- caste, religion, community and falling in love with boy of the same community etc. are all interconnected and so very difficult to change their attitude towards it.

(V) Functionality : If an attitude is useful to a person and serves many important functions as well as needs that it is less subject to change. For eg. many times it happens that people have positive attitude towards certain religious leaders political parties or a particular individual because they help him to get social status, power, increases their self respect and esteem. In such situations it is difficult to change attitude towards them as they play an important role in their life.

Prejudice:

Majority of the problems that arise in the world today like terrorism, racial discrimination, problems of reservations, caste discrimination, intercaste conflicts, cold wars, religious, biases etc. are the result of negative attitude like prejudice. Prejudice can sometimes bring very destructive outcomes we are all living in a world of science and technology but the most painful situation is that we cannot leave our prejudices and live a harmonious life. A long time negative attitude can later change in to prejudice. It is acquired without making adequate inquiry and without adequate knowledge. Negative socialization can lead to prejudice. If we want to live a peaceful harmonious life then it is essential to either eliminate or reduce prejudice.

1. Nature and definition of prejudice : The word prejudice is derived from the latin word “praejudicium” in which “prae” means “Before” and judicium means “judgment”. On the basic of this it can said that “prejudice is judgement before hand”. Psychologists believe that it is a predetermined negative attitude and there is no supportive evidence or proof for it. Prejudice is practiced in an aggressive manner which is harmful for the society.

(1) Definition :

“Prejudice is a preconceived attitude opinion feeling or a thought with a view to show opposition.”

Newcomb

“ Prejudice is an impulsive negative attitude which is predetermined and acceptable thought which is without any proof .”

Ogborn

“Prejudice is an aggressive negative attitude which is learned without any support of real facts or sufficient scrutiny.”

B. Kuppuswamy

On the basis of the above definition we can say that prejudice is a predetermined thought or attitude, which is not supported by any real facts.

(II) Nature of Prejudice are as follows:

(a) Prejudice is based on inadequate knowledge and information

For socialization or other social reasons, an individual becomes a member of a particular group.

He follows the beliefs, attitude, prejudice etc. followed by the group members. Sometimes it is also on the basis of personal experiences. Usually when a person is asked about the reasons for prejudice, he does not have any facts to support it. But he practices it because the other members also does the same and is not ready to change it.

(b) Prejudice is always aggressive

Prejudice is based on inadequate information, which is never tested but it is the centre of emotions and aggression. It is directed towards individual, caste, community, group, religion etc. for whom there is prejudice it is expressed by using foul language, negative behaviour, aggression, violence etc. India and Pakistan are two countries whose prejudiced attitude is reflected in sports. For eg. In cricket world cup final match between England and West Indies Then people of India or Pakistan are not bothered whosoever wins but if the some final is between India and Pakistan then the whole scenario is different. If India wins, people will burst crackers and rejoice with such aggression which is suggestive of prejudice attitude towards the other country.

(c) Prejudice teaches an individual rationalization

Rationalization is a defense mechanism where an individual uses false or concocted reasons for his behaviour. As the individual does not have any justification for his prejudice and does not accept his negative behaviour but he tries to logically reason out for his action.

(d) Prejudice arouse poisonous feelings

Prejudice is a negative attitude which give rise to negative emotions and aggressions. If one group shows aggressive attitude towards the other than the other group retaliates with more aggression which increases the prejudices. Prejudice give rise to many antisocial activities like communal riots, strikes, destruction etc. which increases the conflicts and negative feelings.

(e) Prejudices are group-oriented

Every member of a group has different types of experiences, beliefs, understanding etc. Within the group members which give rise to prejudice. Such individual prejudices are generalized towards people, religions, group, community etc. If we have seen one business man who is a cheater then we say that “All business man are cheaters”. i.e. the whole group of business man are categorized as cheaters. If is a class two three students are notorious, the teacher develops prejudice for the whole class instead of those students.

(f) Prejudice is passed on from generation to generation

Man is a social animal and so all his life he under goes the process of socialization. He realizes that prejudice is the result of personal experiences, social conditioning and present social situations. Many times

we have seen that children do not understand the prejudiced behaviour of elders in the family. But as time passes and the child grows up and matures, he starts understanding the prejudiced behaviour by interaction and socialization. He also starts behaving in the same manner. So we can say that prejudices are passed from generation to generation.

2. Techniques of Reducing Prejudice

In earlier chapter we have studied that prejudice is a negative attitude which give rise to aggressive activity as well as response. So it is very harmful for the society. It leaves a longlasting negative effect which harms the harmony and peace of the society. The big challenge for Psychologists is to work for a society without prejudice or to reduce mutual prejudices in the society. A few strategies of reducing prejudice are as follows :

(I) Socialization : Prejudiced behaviour is learned by process of socialization through family, religion, society, community, group etc. Inadequate information and knowledge give rise to prejudices. So it is important that through proper understanding, correct information, knowledge with justification can help to reduce prejudice. In ancient India, inter caste marriages were not allowed because of caste discrimination but due to socialization it was possible to change their thinking and hence people started accepting inter caste marriages which is a positive step towards reducing prejudice and also caste discrimination.

(II) Inter group contacts : An important technique of reducing prejudice is to provide opportunities to various groups to come into contact with each other. When people have to work together it is very difficult to maintain negative stereotypes for each other. But merely increasing the contacts will not lessen the inter group conflicts. When the groups social and economic status is similar increasing their contact is worthwhile. Inter group contacts can help in reducing negative feelings and can give rise to more positive attitude. Such atmosphere should be created where there is trust, faith, security, love, tolerance among two groups rather than hatred, resentment, insecurity etc. This is possible only by increasing inter group contacts.

(III) Reorganising learning in family and school : For a human child, the first school is family and the second is school. In both the institutions the child learns various types of lessons. In school and family, if we want to reduce prejudice in children then more purposeful education, should be provided. In school if more importance is given to group learning and activities like social service are conducted then prejudice can be reduced. Even in family the parents should not force their views opinions, prejudices on children but instead teach them to be independent in their learning. As per Stumbera's studies it is found that illiterate people stick to traditional values and so it is important to educate them. Harding and his colleagues say that change can be brought about in thinking by sending strong message through teaching learning process.

(IV) Mass media : For sending message to a large mass of people, various media of communications are useful. Mass media can help to spread message to a large number of people speedily as well as accurately. Science and technology has played an important role in development of mass – media. Newspaper, radio, television, internet, face book, SMS etc. are powerful means of public education and also shaping their opinions. In ancient times, women role was to look after the family children and do household work. They were not allowed to go out.. But the present situation has changed because of mass media continuously spreading message of “Save girl child and Educate them” has been effective in changing the thinking towards girl's education and women liberatio. Free, fair and balanced use of mass media can reduce social tension and help in maintaining social harmony.

(V) Recategorization : When person's from different groups see themselves as a member of a single social identity, their prejudice against – the former out group members change. Due to a favourable attitude towards the group positive contacts increase and prejudices are reduced. Once the group boundaries become weak and ineffective, groups are socially categorised differently which help in reducing or eliminating prejudices. In ancient times caste structure was divided into many parts like sub – caste, higher and lower caste and so on gave rise to prejudice. But with recategorization this kind of attitude can be eliminated.

(VI) Cognitive Interventions : Attitude is based on three main components cognitive behavioural and feeling. By cognitive development we can bring change in individual's perception, thoughts and attitude. Cognition means understanding, knowledge, ability to accept adequate knowledge and also pass it to other people convincingly. For removing prejudice cognitive change plays an important role. Many times people with high social status, power, religious leaders can help in bringing change in cognitive process of the individual or group. In today's world many communities organise group marriages to reduce unwanted expenses and seeing this other people are also encouraged to practice it. Mass media and advertisements play an important role in cognitive development.

(VII) Developing positive attitude : Prejudice means negative attitude which are formed by inadequate knowledge and information. In any society to reduce negative attitude we have to develop more positive attitude. People who have prejudice see only negative aspects in all situations and also behave accordingly. Positive attitudes can be developed among people through various activities like providing proper knowledge, safety, security, face to face persuasion modifying behaviour patterns, role - playing etc. In ancient times there was gender inequality where women had to stay in the house and look after the children but in present world there is no difference i.e. men and women are equal. Propaganda and advertisements like “A daughter makes a home”, “save girl child”, “who will marry your son if there are no girls” etc. have helped in reducing prejudice for girl child.

(VIII) Through Norms : Norms help people in maintaining social peace and law and order in the society. Prejudice give rise to social conflicts, tension etc. in various social situations. Law and order can help in maintaining peace, safety, security and control in the social life of the people. For eg. to increase the female ratio, we should stop female feticide and sex test which is legally a crime. Moreover to make a women capable and independent, “equal inheritance act” has proved to be helpful. Many such laws and acts have increased the safety of women and so they can work freely with males without any fear.

In this chapter we have tried to understand the effects of attitude and prejudice on human behaviour. Negative attitude like conflicts, tension, unpleasantness are increasing in all societies and hence it is important to find ways to reduce them. We should recognize such prejudice, Stay away from them and try to develop positive attitude which will help in the development of our country.

Exercises

SECTION – A

Choose the correct alternative from those give below and rewrite it :

1. Which factor plays an important role, on an individual's thought, language, behaviour, lifestyle etc ?
(a) Heredity (b) Mass media (c) Government (d) Norms
2. What do we call those thoughts that are developed towards different individual's, objects, things or situations ?
(a) Attitude (b) Learning (c) Forecast (d) Inspiration
3. What is the Psychophysical behaviour arising out of mental cognition called ?
(a) Process (b) Attitude (c) Response (d) Expectation
4. Attitudes are not inborn but they are
(a) Expected (b) Inevitable (c) Learned (d) Permanent
5. What is developed in children by positive interactions, love, co-operation with parents and relatives ?
(a) Competition (b) Conflict (c) Positive attitude (d) Negative attitude
6. What is the process of assimilating social customs, values, lifestyle and thinking called as ?
(a) Prejudice (b) Attitude (c) Socialization (d) Social orientation
7. What are firm negative thoughts in the mind of the individual called as ?
(a) Attitude (b) Prejudice (c) Conditioning (d) Socialization
8. What kind of tools are newspapers, television, telephone, mobile, internet etc ?
(a) Mass - media (b) Reduce sale (c) attention (d) stress
9. Which Psychologist said that to reduce prejudice if an individual or group practices, "messages through education and learning" then it is more effective?
(a) Harding (b) B.Kuppuswamy (c) Stamber (d) Sheriff & Sheriff
10. Which Psychologist said that illiterate people stick to traditional beliefs and so to reduce prejudice, education is very important ?
(a) B. Kuppuswamy (b) Stamber (c) Skinner (d) Newcomb

SECTION – B

Answer the following in one or two sentences :

1. Which type of direction is Attitude ?
2. Is socialization an important factor for attitude formation ?
3. Name the tools of mass-media.
4. Define attitude by B . Kuppuswamy.
5. State any two factors of attitude formation.
6. State the techniques which help to change attitude.
7. State the obstacles in Attitude change.
8. What is prejudice ?
9. What is the meaning of reorganizing in school and family ?
10. What is rationalization in prejudice ?

SECTION – C

Answer the following in about 30 words :

1. State any four points of nature of attitude.
2. Explain the method of classical conditioning in attitude formation.
3. Which factors affect the process of socialization ?
4. How publicity can help in changing attitude ?
5. What is the importance of strength as obstacle in changing attitude.
6. “Prejudice is learned” - Explain.
7. What is the meaning of mass-media ?
8. What is the role of interconnectedness in creating obstacle in attitude change ?
9. “Prejudice gives rise to poisonous feelings” Explain.
10. Prejudice moves from individual towards whole group. - Explain.

SECTION – D

Answer the following in about 50 words :

1. Explain : “Attitudes are not inborn but learned”.
2. State the factors affecting attitude formation and discuss any one.

3. Explain : “Complexity” as obstacle in attitude change.
4. Explain the definition of prejudice.
5. Explain : “Cognitive interventions” as a method to reduce prejudice.
6. Explain that attitudes are group oriented.
7. Explain with example how prejudice can be reduced by developing positive attitude.
8. How inter group contacts can help in reducing prejudice ?
9. Explain how norms can help to reduce prejudice.
10. Explain the importance of mass – media in reducing prejudice.

SECTION – E

Answer the following in about 80 words:

1. State and explain the definition and nature of attitude.
2. Explain with example the method of observation in attitude formation.
3. Explain the factors that create obstacle in attitude change.
4. Explain nature of prejudice.
5. State the techniques to reduce prejudice.



We are all living in the 21st century where hardly any individual will be there who has not experienced stress or tension. While making efforts to cope up with all these challenges, problems, changing times and situations in life the individual experience stress. The factors that cause stress in our daily life are either accidental or man made. Stress has become an integral part of our daily life and has also become a primary cause of our physical, cognitive and behavioral health problems. When in stress the individual becomes mentally disturbed, experiences despair conflicts and pressure etc. If an individual is not capable to deal with the stressful situation then he will suffer from various kinds of physical or psychological disorder like depression, stupor, mania etc. He also suffers from problems likes heart ailments, diabetes, ulcer, brain damage, blood pressure etc. which are the result of stress.

In coming years if we people want to live harmoniously with stress then we will require strong mental health. Only psychologists and people associated with psychology will play an important role in this situation. If you want to live a mentally healthy life, we need to change out life style and habits. To fight against stress, an individual should give importance to balanced diet, time management, exercise, music, and the most important yoga and meditation. All these should become part of our daily life style.

Meaning - Nature, Model and Source of Stress.

1. Definition-Nature :

Stress is purely a scientific word. As per engineering, it means “external force directed on physical object or substance” which gives rise to stress and the substance changes. In psychology, external stimulus tries to bring change. In an individuals physical-mental, internal-external situations, mental state that arise out of situation is called as stress. Biologist and medical science say that stress is physical, psychological or impulsive factor which makes an individual feel physical or mental stress. It is such situation of threat, frustration or conflict which has become burden for the physical and mental energy of the individual. Stress is an external event or stimulus which produces tension or strain. If we see different definition “Stress means disappointment, conflict or pressure which arises a challenging situation for the individual’s physical and mental energy.”

“Stress is the pattern of responses an organism makes to stimulus event or situation that disturb the equilibrium and exceeds person’s ability to cope.”

“Stress means extreme experience which are there for long time and are also challenging associated with impulsive behavioural and bodily changes”

Negative stress is a response that creates an imbalance in our physical mental activities. The development in science and technology has modernised and improved the quality of life but also resulted in many new problems which lead to stress. In other words stress has become integral part of our life.

Stressful situation gives rise to "fight or flight" reactionary processes in an individual which raise the level of cortisol of adrenals secretions in the body. Stress experienced for short time makes a person active and alert where as long term stress has adver effect on the health of the insividual. An individual can not control stress but can definitely choose how to react to it. Let us see the nature of stress...

(I) There are three type of stress:

Depression, conflict and pressure

(II) Degree of stress is dependent on many factors :

Whether the degree of stress is more or less will depend on the individual's capacity to meet with the challenging situations, make adjustment, it's characteristics and how much support he gets from the external environment.

(III) Effect of stress is specific :

In terms of stress it can be said that some of the reaction to stressful situation are general and some are specific. In any one situation, different people experience, difference degree of stress. In this way an individual can experience specific kind of stress. The effect of stress depend on factors like individual's, age, gender, profession, economic condition, interest, skill and other individual-social factors. Hence the effect of stress in a individual is specific and different at different time.

(IV) Some times reason for stress are unknown :

Many situations are worrisome and challenging because of which stress is experienced but the reason are known. We feel the stress but cannot know the reason for it.

Stress because of unknown reason can be due to suppressed feelings, anger, motivation, so on.

(V) One has to price to face stress :

Every individual in his life span has to face stress and also make adjustment with it. To learn, to deal with extreme stressful situation, individual has to compromise with strength, tools and time. To be competent enough to face stressful situation, one has to make lots of adjustment and sacrifices.

(VI) Stress decreases the competence of an individual :

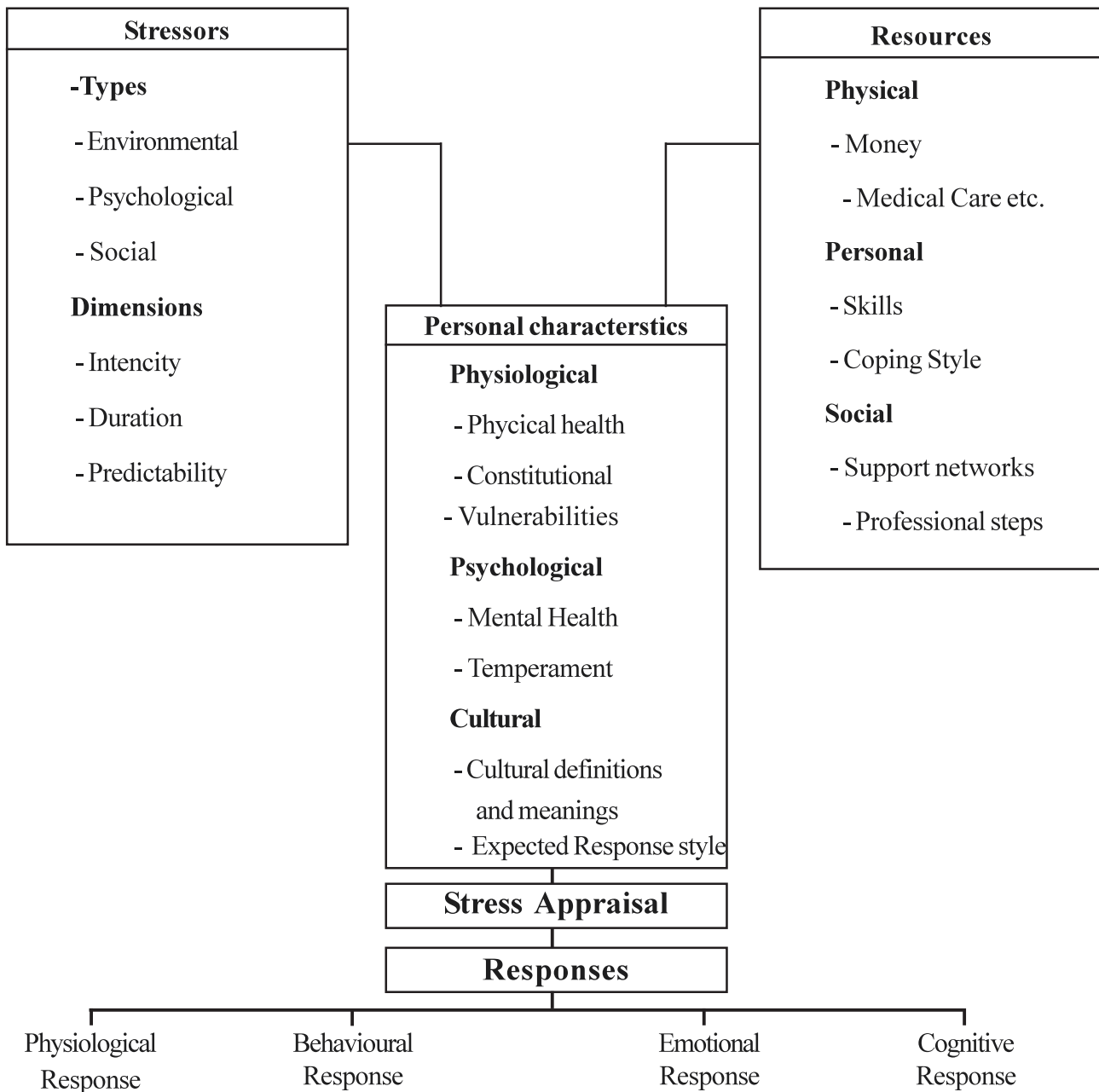
In extreme stressful condition, individual experiences problems in perception, cognition, thinking is obstructed, lack of understanding and so response also becomes stagnant and limited. In such situation, individual can not solve problem because of rigid behavior and also obstructions arise in behavior change. If the intensity of stress is high and for long time then it has negative effect on the capability or competency of the individual to deal with it.

(VII) Stress can also have positive effect :

Stress is always negative and has negative effect is also wrong because sometimes it can also have positive effect the individual to cope up with stressful situation, think of new ways, alternative resources, and find out new creative and constructive solutions.

2. Table and model of Lazarus.

In the decade 1950 to 1960, psychologists had a debate regarding what is more important behavior or cognitive appraisal. After that Richard Lazarus gave his views based on thoughts our feelings. He then tried to study the degree of stress on individual and concluded that, incidents or situation are not bad, but how the individual perceives it, interprets and makes an appraisal of it, whose effect is either positive or negative on stress.



Figures-5.1: A Theoretical Model of stress process

Figure 5.1 is a theoretical model of stress appraisal by Richard Lazarus. Richard Lazarus has classified these appraisals in three types.:

(I) Nature of stressors **(II)** Characteristics of the individual **(III)** Resources available to face the stressful situation

(I) Nature of stress : Different types of external and internal stimuli which give rise to stress are called stressors. They are classified into three groups and are as follows environmental stressors : Noise, Pollution, crowding etc... are called as environmental stressors. Psychological : Depressions guilt, remorse, conflict frustration, pressure etc... are called as psychological stressors. Social stressor: fights, loneliness, break in relationship etc are called as social stressors.

The effect of the stressors will depend on its intensity, duration and effectiveness. High intensity and long duration stressors, give rise to more stress and if the effectiveness of the stressor is less then the individual feels less stress. Predictability also plays an important role in stressful situation.

(II) Characteristics of the individual “ Stress also depend on the personal charactersties of individual and how he reacts to it, these can be physical, psychological and cultural.

Physical characteristics include physical health, constitution of the body, bodily capacity and internal weaknesses. A person suffering from sickness has got weak body constitution and capacity so he/she will experience more stress then a physically healthy individual.

Psychological characteristics include mental health temperamental and self concept A person who has got good and sound mental health is happy go lucky and has got high self concept and he/she will experience less stress.

Cultural characteristics include cultural definition and its meaning expected response style, people who behave according to the cultural standards experience less stress.

(III) Resources available to face the stressful situation :

The following are the individual to deal with stress.

Physical resources include money, medical care & attention, physical facilities etc...

Personal resources includes personal skills, expertise and coping style.

Social resources include social support, family, relation, help from community, professional help etc...

All the three resourses are easily available to the individual than he experience less stress.

An individual evaluates stress on the basis of his characteristics, resource and stressors and then decide how to react to it. Richard Lazarus has classified these evalvations into two types:

(a) Primary appraisal : At this stage the person makes an initial appraisal about the seriousness of the event. i.e. what is happening and whether this event is good? Is it relevant or irrelevant ? Is it stressful and threatening ? If it is stressful what would be its effects and how much? whether it deserves responses or not ? On the basis of these types of question an individual does primary appraisal of the situation.

(b) Secondary Appraisal : Once a decision to respond to the stressful situation is taken then the second stage of secondary appraisal comes into operation. In this stage the individual makes an evaluation of his personal and social resourses and alternatives available for dealing with stress-whether these resources are sufficient and useful to meet the stressful situations ? At the end the person implements the best alternative.

There are several other factors which influence these both types of appraisal like-

One such factors is the past experience of dealing with such stressful conditions. If one has handled similar situations in the past successfully, then the present situations seen less threatening. But if the person has no such past experiences it is possible that the present situation is perceived serious and threatening and that he would feel that I would not be able to cope with it hence he will experience severe stress.

If the person has confidence in his own competence and efficiency to deal with the situation an that he would be able to control howsoever threatening situation or its consequence then he would experience less amount of stress. Absence of such confidence will lead to severe stress.

The experience and outcome of different stressors may vary from individual to individual.

3. Sources of stress:

Twentieth century was the age of tension but the present age is known as the age of stress. Studies in the medical science increasingly show that stress is the root cause of several physical ailments. Stress has become a repetitive problem. It is not easy to establish and maintain adjustments with various types of challenges in life-family, profession, social, political, physical geographical changes or challenges can lead to stress. Over and above these changes, the daily problems and ordinary events also can cause stress and strain. There are three sources of stress and they are as follows

- (I) Traumatic events
- (II) Recent life experiences
- (III) Hassles, everyday problems

(I) Individual can accept minor changes in life but sudden traumatic events like fire, earthquake, being a hostage, tsunami, being a witness to a gory crime, war, terrorism, kidnapping etc have negative effect as stress in many people. There are long lasting effects of stress and the side effects of such events may occur even after a lapse of sometime also. For eg a victim of earthquake or fire has survived the traumatic event but often they relive the horror, feels depressed, report might mares, stop speaking due to shock and so on. These kinds of traumatic events are however rare but their negative effects are very intense and harmful

(II) Recent life experience bring change cumulate and contribute to stress. Events in family like death of a spouse, divorce, marriage, personal life events like change in residence change in food habits, personal injury, event at the work place like retirement, trouble with the boss, financial matters like mortgage of property, shortage of finances, unemployment, loss of finances and such other events and experiences in life contribute to stress in different degrees.

(III) These involve the happenings in everyday life for eg, preparing children for schools, helping them in their studies , care of family, attending to various emergencies etc are daily hassles for a housewife. Some working women have an additional burden of these daily hassles. Events like no alarm signal in the clock, reaching late to the examination centre, pencil not functioning properly, break down of light and fans in examination hall etc are all conditions which contribute to stress, Such hassles and struggles are usual but they make our life full of desperation and become stressor, which later cause stress and strain.

Reactions to stress :

There are three types of reactions to stress and they are as follows:

(I) Bodily Reaction :

When an individual or animal experience an external threat, he is in need of an amount of energy to give immediate reactions to meet the situation. At that moment the autonomic nervous system becomes active and operational to satisfy the needs of extra energy.

Walter Canon in 1920 has described the entire physiological mechanism which is involved in the process of meeting the threat of the situation. In this mechanism the neurons, the nervous system and the endocrine system become very active. Canon describes this reactionary process as “fight of flight”.

The origin of physiological reactions related to stress is in hypothalamus, which lies in brain. Hypothalamus is known as the centre of stress. Also in the time of arisis hypothalamus initiates actions along two pathways gland.

(1) Through autonomic nervous system. (2) Through activity of the pituitary gland.

Autonomic nervous system in divided into two parts (1) Sympathetic system and (2) Parasympathetic system.

The Sympathetic system through it's operation provides extra energy to the organism needed to meet the challenge. On the sympathetic system being active the respiratory processes become fast and deep there is increase of the heart beats, arteries get contracted hence there is rise in blood pressure. Moreover because of changes in the muscles of throat and nose, there is more flow of air to the lungs. There are changes in facial expression related to different emotions. The digestive system is arrested a little. The adrenal glands release a large amount of catecholamine. These changes are the indicators of stress. As a result there are physiological changes as seen alike in fight or flight response. The hypothalamus activates the pituitary gland, which then releases corticosteroid which provides energy.

The secretions from the pituitary gland stimulate the thyroid gland and the adrenal glands also the secretions of these glands produce several changes like release of more blood cells in the bone-hollow, production of more sugar in the pancreas, thickening of blood etc which are very necessary to make the body system more active.

2. **Behavioral and cognitive reactions:**

The behavioral reactions of the person under stress depend on the intensity of stress.

Under the condition of low intensity stress the person indulges in the reactions like eating, aggression, sexual behaviors etc. It also motivates the individual in the direction of goal achievement and improves his performance.

Under the situation of long duration stress, it leads the individual to maladaptive behavior. As a result the person becomes irritated, impatient, weak and mild. If a person can handle and control high intensity stress then he will have no behavioral problems.

Sometimes the high intensity stress causes obstructions in behavior and it leads to repression also sometimes the person feels quite helpless and also becomes inactive.

The cognitive perception and interpretation of the stress situation sometime becomes damaging to the self respect and self interest of the person. Thus the person becomes overwhelmed and his cognitive functions are affected very badly the individual become more attentive to the threatening situation and his ability to meet the challenges is affected very badly. There are negative effects on the persons memory, creative thinking, judgment and decision making for eg. sailor stuck up in the storm with his boat remains indecisive, an individual going for a job interview because of stress commits errors in answering very easy questions and even the questions he knows very well.

3. **Emotional reactions :**

There are several types of emotional reactions under stress. If the stress is perceived as an excitement and challenge which can be handled then the positive emotions like happiness, joy, exuberance are experienced.

But if stress is interpreted as a threatening situation it leads to insecurity and is uncontrollable then it has negative effects like fear, depression, anger etc. Such negative emotional reactions are an obstacle to our

effort to face the stress and strain. The stresses which people experience vary in terms of intensity, duration, complexity and predictability.

- (I) Intensity – high or low
- (II) Duration – short term or long term
- (III) Complexity – less or more complex
- (VI) Predictability – unexpected or expected

Usually more intense, prolonged, complex and unanticipated stress have negative consequences. Moreover persons experience of stress depend on his physiological structure health and strength. A person with poor physical health and weak constitution naturally will be more vulnerable to stress. The intensity of the persons experience of stress also depends on certain psychological factors like mental health, temperament, self-concept etc. The cultural context in which people live also determines the nature of reactions people would give under various stressful conditions. Resources like money, medical facilities, personal and social skills and the particular style of coping to deal with the stress etc play a very important role in the persons experience of stress. Thus all these factors determine the appraisal of a given stressful situation.

1. Frustration :

There are several hindrances in the path of goal achievement but when the person because of these hindrances is not able to reach the goal then what he feels is called frustration.

Needs are the motivating force for activities. We are motivated by various biological, psychological, social needs. The efforts for satisfaction of these needs leads to the goals. For example the hunger or thirst need directs the efforts of the individual to the goal of getting food or water. But if there are obstacles or hindrances in satisfying the needs then the individual experiences frustration.

Reasons for frustration can be individualistic or environmental. For eg. An individual wants to become an actor or actress, wants to even become a singer but his looks and voice are on obstacles in his need satisfaction, then we can say that frustration is because of individual factors. There is a wide range of environmental and social obstacles which are sources of frustration.

Effect of frustration can be minor or major but it definitely is a serious threat to the well being and survival of the individual.

2. Conflict :

When there are more than one goals or options before a person and he is not able to make a choice of only one there is mental conflict.

In conflict there is more than one option in front of the individual. He is supposed to select one out of many which is a difficult task. Such a conflict if continuous and constant leads to loss of emotional equilibrium.

Basically there are three types of conflicts:

Approach-approach conflict:

In such a type of conflict there are two alternatives before the individual and both are acceptable but the individual has to select only one out of them. For eg on a holiday either to go for a picnic with friends or to go for a movie with family are the two options from which the individual has to select one. He likes both of them, this is approach conflict.

Avoidance-Avoidance conflict:

In such a situation there are more than one alternatives before the individual but both are unacceptable to him. But he has to select one as a lesser evil. He is in situation of dilemma a valley in front and a deep well behind. For eg either to do a job which is not liked or to remain unemployed, both the options are not acceptable but the individual has to however select any one out of the two.

Approach – Avoidance Conflict :

In such a situation there is only one alternative before the individual. This alternative sometime looks attractive and acceptable, the next moment it looks repulsive and unacceptable. For eg. A proposal from a young man who has a desire to marry, but is not prepared to shoulder the responsibility associated with marriage. A person wants a luxurious bungalow but does not want to take up the responsibility needed for it. In this type of conflict, the individual for a moment want to accept it and the next moment wants to reject it.

3. Pressure :

Real or imagined serious demands imposed on one person by another individual, group or situation which is difficult to cope and the thought give rise to a mental condition called pressure.

In today's competitive world every person struggles and works hard for long hours which leads to rise in pressure like frustration, pressure also have inner and outer sources. The central one being over ambitious and having difficult life goals.

In this world to achieve success an individual has to do hard work make maximum use of opportunities, optimize his gains, adapt to never realities and challenge etc which can lead to rise in pressure.

In our everyday life we also experience social pressure. Competitive achievement, pressure to focus on work complex and speedy changes, family and other relationships are all different types of social situations which can lead to pressure.

Techniques of coping with stress :

Life without stress is not possible. The intensity and extensiveness of stress are so harmful for our health, that it disturbs and disintegrates whole existence of the person. Therefore we have to learn how to pacify or how to cope with the stress. To cope with or to avoid negative effects means to make attempts to satisfy the environmental demand. There are several techniques for dealing with stress. Every individual has his own unique style of dealing with stress. It is surprising that despite all the stresses one goes through high or low intensity, one generally does not succumb or show signs of breakdown. People to cope effectively with the stresses continually examine their environment both internal and external. He/She tries to search what opportunities or challenges or dangers may be present and learn new skills to adapt to the changes coming in life. In addition, there are several personality dimensions like optimism, detachment, hardiness and unchangeable trust for the goal etc which reduce and moderate the negative effect of stress.

Generally when a person is confronted with a new problem or demand initially he tries to define it, evaluate and understand how far it is harmful or beneficial. It is important that his evaluation of the problem is realistic. Then next, he thinks what to do about the problem. To arrive at a solution of this problem, he formulates new courses of action and indentifies the best alternative. Sometimes it may happen that the person has no time or chance even to make an evaluation or think about the problems. At that time some of the coping actions emerge into operations automatically and spontaneously. Such reactions which are a part of the survival mechanism can be called as built-in-reactions. They come into action whenever there is a threat to survival. Whenever there is a necessity to maintain and restore equilibrium, some of those physiological and psychological changes come into operation. One such built in mechanism is crying which bring relief in pain and emotional

strain. Thus man adopts certain strategies or techniques for relieving stress. Some of which are natural and some are habitual, some are to be learned. Some techniques are personal, individual and social. While using social strategies or techniques the person needs the help of others.

Coping reactions can be divided into three broad categories :

- (1) Task oriented techniques.
- (2) Emotion oriented techniques.
- (3) Ego defensive techniques.

(1) Task oriented techniques- this technique directly deals with the stressor, demand. Here the adjustive mechanism may be through overt behavior or a psychological process. The objective of these reactions is to achieve realistic adjustment. Here the effects are based on objective assessment of the stress situations and on a deliberate, logical and constructive course of action. For example to make changes in one's self or change the surrounding or both. These task oriented techniques may be external eg improving the atmosphere for study or they may be internal and covert like changing one's attitudes. There are three forms in this technique:

(1) Dealing with the problem head long (remove the threat object, source of the problem, weaken the influence of the obstacle or destroy it.)

While dealing with the stress problem directly, the person at the outset has to make an appraisal of the damage making ability of the stressful situations. For eg. a student who has failed in the exam, will work hard again to pass.

(2) Withdrawing from the problem situation (withdraw from the threatening situation, compromise, discussion etc.)

To escape or withdraw from the situation is another alternative to handle the stress problem. When the person is unable to face the situation he wants to avoid the confrontations or withdraw from it. For eg a student who has failed in exam will either stop giving exam or will leave the studies.

(3) Some other mechanisms –(to resist the stress and tension to enhance one's fighting and resistance ability or to reduce the strength of the stressor)

When a person neither accept the technique of head long confrontation nor withdrawal he accepts the path of compromise for eg a student who has failed and cannot study will try his hands in music or sports.

(2) Emotion oriented technique: In this technique the person instead of bringing change in the stress situation makes efforts to bring change in his own thoughts and emotions. This emotion focused approach is more remedial than the problem solving approach. For here the emphasis is on relieving the emotional impact of stress, In this technique, self control and emotional regulation are more important For eg controlling anxiety, frustration anger and other emotional reactions or trying to change these emotions some people to relieve the tension may take alcohol or tranquilizer, which provide temporary relief. Many people, while in distress and desiring to get the threatening problem out of mind, go to a party or a movie or watch T.V. Many people whistle or laugh or overeat when they are anxious or engage in day dreaming when they feel helpless. Such emotion focused coping may not solve the problem, but helps people in managing the negative effects at least for a short period.

(3) Ego defensive technique : In this kind of coping of the person primarily tries to protect one self psychologically from emotional hurt and self devaluation. These mechanism are learned responses which tend to operate on habitual and unconscious levels. For example repressions, denial, rationalization, projection etc

are such ego defense mechanism which indulge in reality distortion and self deception. These mechanism unconsciously protect the person from internal mental anxiety and pain but leads to a distorted interpretation of the reality. Its over use may lead to maladaptation or maladjustment. The primary aim of these ego-defensive technique is to cushion failure, reduce anxiety, repair emotional hurt and thus maintain person's feelings of adequacy and worth and protect one's feeling of being useful.

Effects of stress:

Earlier we have seen that stress is an inevitable part of human's life in this modern world. Majority of the people experience either major or minor stress which has adverse effect on their physical and mental health.

1. Bodily Effects:

There is a close relation between body and mind so when stress is prolonged it does have a negative effect on physical health and impairs the psychological functions as well heart rate increases respiratory, cardiovascular, adrenal secretions etc functions are heightened and also have negative effects. Stress also has negative effects on the ability to think and immune system of the individual. Canadian endocrinologist Hans Selye in 1956 studied the bodily reactions to stress and proposed a theory. In his book, he stated that how external stressors have negative effect on health of the individual according to this theory the style of reactions in bodily adjustment to some special stressors is general so it is called general adaptation syndrome (GAS). It is a three stage model theory.

1. Security and stress :

Our body reacts in three ways.

(a) Alarm reaction stage :

In this stage there is an experience of a stressor or the presence of noxious stimulus. The person prepares himself to resist the stressor. This state refers to bodily changes like increase in secretions of adrenal gland, release in hormones like epinephrine and non-epinephrine which provide extra energy to fight the stressful situation. Individual also experience muscular and joint ache, fever, fatigue, rise in blood sugar and blood pressure etc. In such situation, an individual will fight the stressor or run away from the situation

Majority of the people experiencing stress react in the same way.

(b) Resistance stage :

During this stage, the reserve bodily energies become ready to deal with the stressor and achieve suitable adaptation. At this stage there is constant pressure of the stressor yet the bodily changes which emerged in the first stage return to normality. During this stage there is resistance to that stressor but other relatively weak and mild stressors invite intense reaction. For eg a person suffering from cancer is trying to fight against the disease but in doing so become easy victim of mild problems like depression and frustration.

In this stage the individual is continuously trying to resist the stressor and so feels tired, worried, sleeplessness, memory loss is experienced and sometime also takes support of drugs to forget the stressful situations.

(c) Exhaustion stage:

This is the stage when the body's entire reserves are exhausted and the person is no longer in position to resist the stressor. As a result he becomes a victim to severe physical harm or even major illness. The main cause for this is that the pituitary and adrenal glands become unable to produce and secrete hormones for a pretty long period. Hence the organic physiological system cannot adapt for a pretty long period with the

chronic long time stressors. When this stage of exhaustion would set in and how much exhaustion the person would experience depend on the intensity of the stressor and personal characteristics.

(II) Psychophysical problems:

If stress remains in the individual for long time it has negative effect on the health of the individual which result in psychophysical problems.

Reasons for psychophysical diseases are psychological but their effects can be seen on the physical body.

"Psychophysical diseases means those physical bodily problems because of psychological conditions".

In present times many people become victim of disorders like heart disease blood pressure, asthma, diabetes, ulcer brain stroke etc.

(a) Heart related problems and blood pressure : In normal situation, a healthy person's heart beat is 70 to 75 per minute and blood pressure will be 120/80. But in stress situation the blood gets thickened veins get contracted and there is problem in blood flow. The heart has to exert extra pressure to increase the blood supply to different organs of the body. According to one study it is said that 50% of chances in heart problems increase because of stress.

(b) Asthma : External as well as internal factors of the body are responsible for asthma. Stress is the internal factor responsible for asthma. As per one study, children who suffer from asthma have their root in emotional attachments and upbringing. If the family and parents are taught. In the similar way, if training for dealing with stress is given to the patients of asthma, then the attacks of asthma can be reduced. How to deal with stressful situations, we can reduce the effects of asthma and also be able to control it.

(c) Diabetes : Usually, type-2 diabetes is related to stress and it has negative effect on the health of the individual. Because of stress, the pancreas stop producing enough insulin and the glucose in the blood is not maintained. The body is unable to use the insulin that is produced. If stress is reduced or controlled then this type of diabetes can also be controlled.

(d) Stomach ulcer: When there is increase in the stress level, there is also increase in the level of acid in the digestive track and the individual cannot take proper diet. The walls of the stomach gets infected with ulcer. People who work on higher post who have lot of work pressure and stress, they usually suffer from such kind of ulcers.

(e) Brain stroke : A stroke occurs if the flow of oxygen rich blood to a portion of the brain is blocked. When the brain does not get the required oxygen, the brain cells are damaged, sudden bleeding in the brain can cause a stroke. The symptoms of brain stroke or even death are trouble with speaking and understanding, paralysis or numbness of the face, arm or leg, trouble with seeing in one or both eyes, headache, trouble with walking etc.

2. Psychological effects :

Psychophysical effects of stress leads to psychological problems and it has negative effect on the mental condition of the individual. Depression effects on decision making process, creates obstacle in problem solving, problem in adjustment etc are the psychological problems an individual suffers from.

(I) Depression : Any person when experience stress for a long period of time, there is change in the functions of the internal organs of the body. This directly affects the feelings and emotions of the individual. When an individual is deprived from satisfying a desired need, he experiences frustration. Long lasting effects of frustration can lead to depression. The symptoms of depression are anxiety, disturbance in digestion,

disturbance in sleep, loss of interest and energy, weakness feelings of guilt, thinking about suicide, distraction etc. If the intensity or severity of stress increases than the symptoms like loss of pleasure and interest, keeping away from activities, loss or gain in weight, slow down behavior, exhaustion, inability to think clearly, feeling of worthlessness, frequent thought of death and suicide etc are common thoughts seen in an individual.

(II) Effect on decision making process: When the level of stress increases in an individual, then there is a negative effect on the capacity to take decisions to take balanced decision it is important to evaluate the situation in a realistic way, to have correct perception, to be able to take decisions from different point of views. One has to think in a calm way also. When an individual is under severe stress he cannot think logically and hence it affects his decision making process. In such situations he either avoids taking decisions or is dependent on others for making his decisions.

(III) Obstacles in problem solving : In stressful situations, an individual faces difficulty in solving his problems. To solve problem, one needs to think clearly, think positive and negative aspect, trials should be increased and errors should be decreased, an individual suffering from severe stress finds it difficult and so even a minor problem will become very serious for him. He/She cannot adequately evaluate the situation and hence cannot think or try properly to solve his own problem because of stress. Thus we can say that stress is an obstacle in problem solving.

(IV) Problems in adjustment : To be able to change as per need of the environment and situations is called adjustment. The individual tries directly or indirectly to make adjustment with the environment and situation but in doing so he experience severe stress which give rise to psychological problems like lack of energy, inability to work, capacity to think, confidence etc are affected in a negative way and he has problems in adjustment. Even minor changes in life cannot be tolerated by him. Because of his high emotional quotient he feels fear, anxiety, doubts etc and so cannot change himself. Hence he finds it difficult to make adjustment even in social life.

Mental health :

1. Meaning and Nature:

Mental health means a mentally sound or psychologically strong condition where there is absence of mental disorders. It was defined as the absence of physical illness.

"Mental health means such a psychological condition in which there is satisfactory adjustments in his emotional and behavioral practices".

As per positive psychology "Mental health is also related to an individual's capacity to enjoy life, ability to work and also be able to establish psychological stability".

According to WHO "Mental health is complete state of physical, mental, social and spiritual well being"

"Mental health means development of healthy personality which will scientifically try to fight the onset of any kind of psychological or mental disorder"

- **J. C. Coleman(1962)**

Nature of mental health which is acceptable in one society may not be acceptable in another society. An individual's adjustment is affected by social, bodily, mental and physical factors. It is first decided that which factors affect mental health and how much and then try to control it. Mental health is very closely related to social practices and social values. Every society has got established norms, values, behavior patterns, cultural practices etc. which are to be practiced by people living in the society.

Just as social situations and values change, in the same way mental health also keeps on changing. It is also possible that in deciding the nature of mental health, the social ethics of the society also play an important role. Hence if the social ethics change the nature of mental health or psychological health is also affected. For eg. in the old version of DSM there are certain characteristics which are included in the classification of psychological disorders but the some are not included in the latest version.

2. Measures to improve mental health:

In present condition to maintain good physical and mental health is a challenge for the people. Usually people have knowledge about how to maintain physical fitness but they are not aware about measures to improve mental health. The following are the important measures.

(I) Diet: There are many proverbs which suggest that diet also decides the mental health of the individual for eg. “ what you eat that you belch” you think as per what you eat” etc. Balanced and nutritious diet which full of minerals, proteins, which provide energy to the body should be consumed to reduce the risk of mental disorders. As per the body requirement one should consume food which should contain less calories, fat and sugar.

Different chemical changes take place in the body because of diet, sometimes there are less chemical changes and sometimes more but both the situation have negative effect on mental health. An individual should eat light, fresh and seasonal food and try to avoid junk food, oil food, packaged food etc.

(II) Exercise: Exercise is most important and effective way for promoting positive health. Exercise help in increasing the blood circulation in the body. Brain will get more oxygen and blood which will increase its capacity to function. Regular exercise can release that tension of the muscle and purify the blood. Increase in endorphine in blood makes an individual mentally energetic and active.

Every individual should daily do exercise for minimum 40 minutes or play any sports or games.

(III) Yoga and Meditation: In today's modern world majority of the people live in stress which has negative effect on their mental health. To maintain good mental health, India has given the world the gift of yoga and meditation. Every individual should learn to practice it. Maharishi Patanjali along with other sages has very systematically explained the importance of yoga to the whole world. On 21st June the whole world celebrates it as “World yoga day”

Yoga and meditation frees the mind of stress and strain and decreases the physical- mental problems of the individual. Regular practice of meditation leads to synchronization of brain waves and stable alpha brain rhythms. This makes perception accurate, Learning fast, sharp memory, balanced emotions and more mature behavior.

(IV) Change in lifestyle : Industrialization and urbanization has to increase in luxurious facilities which has changed the life style of the people. Vehicles, T.V. internet, mobiles etc. have changed the habits of the people and they have become more idle. This has caused adverse effect on mental health of the individual.

To improve physical- mental health, there is a need to change food habits life style, social relations, ability to work, exercise etc. In modern lifestyle people eat junk food, remain awake till late night and so cannot go for exercise in the morning. All this habits need to be changed and people should give time for rest, leisure time and entertainment

(V) Relaxation activities: Because of modern lifestyle, an individual can continuously remains in stress so negative effect is seen on the functioning of the body organs, hormones, physiological systems and psychological systems. To save one's self from such negative effects, individual should learn the technique of relaxation. Relaxation can be practiced by control over breathing. Different methods, Indian as well as western have been developed to control breathing process for relaxation. By practicing it, the different parts of the body, muscles, organs, thoughts etc feel relaxed and enegretic. Mind can have control over thoughts and experience peace.

(VI) Positive orientation : People with positive orientation are very hopeful. The meaning of positive attitude is that even the most difficult situation is perceived in a positive creative way and then behave accordingly. For example. People with positive attitude will look at half filled glass of water and say it is half full, whereas people with negative outlook will say it is half empty. In the same way we can evaluate the different situations of life. Normally, an individual sees what he thinks and his experiences are also based on that positive thought in mind makes a person more optimistic.

Positive orientation toward life makes an individual stress free, improvement in physical-mental health, decrease in depression, heart problems, increase in blood circulation, increase in immunity and as a result he become capable to fight the challenging situations. One should have more positive thoughts, should laugh even in stressful situation, practice a healthy lifestyle and try to raise the confidence level with optimism.

(VII) Music: "Music is food for mind." Music can bring change in the brain waves and cells. Listening to music bring change in the brain waves which remain for long time even after the music stops. Hence one can become free from stress. Music deeply affects our body and mind it helps in increasing our concentration and also activates our thinking. Light- music has a soothing effect on the brain waves. Music also affects autonomic nervous system. Music can increase positive thinking and make a person feel more mentally stable and creative. So in patients suffering from cancer, depression, insomnia etc music has a very positive effect.

(VIII) Time management: Every individual in one day gets 24 hours. His mental health will depend on how effectively he uses this time. People who lack time management live a very chaotic life. They cannot distribute time for work, food, rest and hence continuously experience stress. This has a negative effect on their interpersonal relationship also.

People who can do proper time management, fulfill are their duties on time, can rest, have entertainment and also be able to maintain healthy interpersonal relationship.

Exercise

Section-A

Choose the correct option from the given alternative and rewrite the answer :

- (1) If a person wants to live a mentally healthy life, in what aspect he should bring a change ?
(a) Work style (b) experience style (c) life style (d) thinking style
- (2) Which is India's invaluable gift to mankind ?
(a) Meditation and yoga (b) Music and dance (c) Acting (d) Exercise
- (3) In which type of stressful situation an individual experience limitation in perception ?
(a) Mild (b) Moderate (c) Severe (d) None of the above
- (4) Who has given his views regarding thoughts and feelings?
(a) Richard Lazarus (b) Hans selye (c) Coleman (d) Serason
- (5) Which type of tool is medical care ?
(a) Physical (b) Individual (c) Social (d) Available tools
- (6) Into how many types is sources of stress divided ?
(a) One (b) Two (c) Three (d) Four
- (7) Who has given the model of physiological responses ?
(a) Hans selye (b) Lazarus (c) Coleman (d) Canon
- (8) When did Walter Canon give the model for bodily reaction ?
(a) 1920 (b) 1919 (c) 1910 (d) 1905
- (9) Which is a natural internal reaction?
(a) Laugh (b) Cry (c) Run (d) Walk
- (10) Who invented about the effects of stress and when?
(a) Hans Selye -1956 (b) Hans selye – 1958 (c) Lazarus -1956 (d) Lazarus -1918

Section-B

Answer the following in one or two sentences :

- (1) Explain the word “Stress”
- (2) What is individual’s reaction in stressful situations ?
- (3) In what content has Richard Lazarus given his views ?
- (4) What are stressors?

- (5) What are social tools?
- (6) Into which two stages appraisal is classified by Richard Lazarus ?
- (7) What is the source of bodily reactions to deal with stress?
- (8) How does an individual behave in minor stress situations?
- (9) What are psychophysical disorders?
- (10) What is the meaning of mental health?

Section-C

Answer the following in about 30 words :

- (1) Define “Stress”.
- (2) State the four points of nature of stress.
- (3) What are the physiological characteristics of stress ?
- (4) State the sources of stress.
- (5) State the function of sympathetic nervous system.
- (6) Define “Frustration”
- (7) What is pressure ?
- (8) State the techniques of coping with stress.
- (9) Define mental health according to WHO.
- (10) Write any four measures to improve mental health

Section-D

Answer the following in about 50 words :

- (1) Explain the stages of stress evaluation given by Lazarus.
- (2) Explain nature of stressors
- (3) Explain hassles daily problems and Sources of stress
- (4) Explain bodily reactions as a response to stress.
- (5) Explain behavioural and cognitive reactions to stress.
- (6) Explain emotional reactions to stress.
- (7) Explain security system and stress by Hans Selye.
- (8) Explain diabetes as a psycho physiological disorder.
- (9) Explain the nature of mental health
- (10) Explain the meaning of positive orientation.

Section-E

Answer the following in about 80 words :

- (1) Explain in detail types of stress.
- (2) Explain the techniques of coping with stress.
- (3) Explain psychophysical disorders.
- (4) Explain the psychological effects of stress.
- (5) Explain the measures to improve mental health

Human being's necessities, expectations, aspirations are unlimited, while the medium for satisfying them are very limited. Humans in their life on and off experience contradictory situations like happy-unhappy, rise-fall, defeat-win etc. In sad and contradictory situations that are in contrast to our expectations, a person loses his control on his emotions and feelings as well as natural and normal behaviour.

Abnormal psychology studies the abnormalities seen in the behaviour of an individual, in which the causes for the abnormal behaviour and its treatment are shown. At global level WHO is associated with physical health. In the same way APA 'American Psychiatric Association' is also associated with the diagnosis and treatment of mental disorders. In recent times, psychological disorders are classified according to their symptoms and time duration. In this chapter, we will seek information about the classification of the diseases and also about the biological, social and psychological factors responsible for the mental disorders.

1. What is Abnormal Behaviour ?

Definitions :

In order to understand the abnormal behaviour, firstly we need to understand the meaning of normal and abnormal.

The word 'normal' has come from the Latin word, 'norma', which means the carpenter's measure tap. A carpenter's measure tap is an ideal measuring instrument, the measurement of which is considered perfect. So we can say that ideal situation of the uniformly accepted norms is known as normal.

Abnormal	=	Ab	+	Normal
		↓		↓
		away from	+	normal

So, "Abnormal means away from the normal".

It is difficult to specifically say that which behaviour is normal and which is abnormal as the concept of normal or abnormal varies in relation to age, caste, sex, society etc. e.g., small child when loses his pencil becomes violent, cries loudly and becomes adamant, is to some extent normal, but if a 25 years old when loses his pen does the same behaviour can be considered abnormal. Usually behaviour that is according to society, culture and age is corresponding the social norms and social expectations and also adjusted to its environment is known as a normal behaviour. Opposite of that, behaviour which is contrast to social norms and social expectations and maladjusted is known as abnormal behaviour.

Abnormal behaviour means deviated from the clearly defined norms, which cannot be considered as a representative of normal behaviour. **- Warren**

Abnormal behaviour is defective, unexpected, illogical, not appropriate and harmful. A person who behaves in such a way put himself/herself and others in trouble. **- James Page**

A behaviour which is low in moral values is known as abnormal behaviour. **- J.C. Coleman**

From the above definitions the universally accepted definition is as under.

Abnormal behaviour is different from the norms decided by the society, unacceptable and creates problems in the social dealings and adjustment.

2. Classification :

Healthy society can be created by healthy persons. A person also behaves in a socially acceptable manner and having a normal behaviour is considered as a sign of a healthy person. Some years ago in the definition of health, only physical health was included, but in modern time physically, psychologically and socially healthy person is known as a healthy person.

At international level various organizations are associated with the classification of mental disorders.

(i) WHO (World Health Organization)

(ii) APA (American Psychiatric Association)

The classification given by WHO is known as ICD (International Classification of Disease) and classification published by APA is known as DSM (Diagnostic and Statistical Manual of Mental Disorder).

Both ICD and DSM are helpful internationally for classifying the diseases on the basis of their symptoms and also for providing proper diagnosis. In 1948 the ICD-6 was published by 'WHO', in which first time classification of mental disorders along with the physical disorders was provided. In 1952 the first edition of DSM(DSM-I) was published by APA. The new editions of DSM published till today are shown below :

DSM - editions	Published year
DSM - I	1952
DSM - II	1968
DSM - III	1980
DSM - III - R (DSM-III - Revision)	1987
DSM - IV	1994
DSM - IV TR (DSN - IV Text Revise)	2000
DSM - V	2013

Extra Information

DSM-V Classification

Neurodevelopment Disorders	ચેતાતંતુનાં વિકાસ સાથે સંબંધિત વિકૃતિઓ
i. Intellectual Disabilities	i. બૌદ્ધિક અક્ષમતા
ii. Communication Disorder	ii. સંદેશાવ્યવહારની વિકૃતિ
iii. Autism Spectrum Disorder	iii. આત્મરતિ (ઓટિઝમ)
iv. Attention - Deficit, Hyperactivity Disorder	iv. ધ્યાન કેન્દ્રકરણની અક્ષમતા, અતિ ક્રિયાશીલતાની વિકૃતિ
v. Special Learning Disorder	v. શીખવાની/શિક્ષણની વિશિષ્ટ વિકૃતિ
vi. Motor Disorders	vi. કાર્યાત્મક વિકૃતિઓ
vii. Other Neurodevelopment Disorders	vii. ચેતાતંતુઓના વિકાસ સાથે સંકળાયેલ અન્ય વિકૃતિઓ

Schizophrenia Spectrum and other Psychotic Disorders	છિન્ન મનોવિકૃતિ અને મનોરોગ સંબંધી અન્ય વિકૃતિ
Catatonia	કેટેટોનીઆ
Bipolar and Related Disorders	દ્વિધ્રુવીય અને સંબંધિત વિકૃતિઓ
Depressive Disorders	ખિન્નતાજન્ય વિકૃતિઓ
Anxiety Disorders	ચિંતા વિકૃતિઓ
Obsessive - Compulsive and Related Disorders	અનિવાર્ય મનોક્રિયા દબાણ અને સંબંધિત વિકૃતિઓ
Trauma and Stressor Related Disorders	આઘાત અને મનોભારક સંબંધિત વિકૃતિઓ
Dissociative Disorders	વિઘટનાત્મક વિકૃતિઓ
Somatic - Symptom and Related Disorders	દૈહિક લક્ષણો અને સંબંધિત વિકૃતિઓ
Feeding and Eating Disorders	સ્તનપાન અને આહારની વિકૃતિઓ
Elimination Disorders	નિષ્કાસન (મળત્યાગ) વિકૃતિઓ
Sleep Wake Disorders	નિદ્રા સચેતતાની વિકૃતિઓ
Breathing Related Sleep Disorders	શ્વાસોશ્વાસ સંબંધી નિદ્રાની વિકૃતિઓ
Parasomnias	પેરાસોમનીઆ
Sexual Dysfunctions	જાતીય અપક્રિયાઓ
Gender Dysphoria	લૈંગિ અસાધારણ ખિન્નતા
Disruptive, Impulse Control and Conduct Disorders	વિધ્વસંક, ઉત્તેજના નિયંત્રણ અને આચરણની વિકૃતિઓ
Substance - Related and Addictive Disorders	દ્રવ્ય સંબંધિત અને અન્ય વ્યસન વિકૃતિઓ
Neurocognitive Disorders	મજજા બોધાત્મક વિકૃતિઓ
Personality Disorders	વ્યક્તિત્વ વિકૃતિઓ
Paraphilic Disorders	અપકામુક વિકૃતિઓ
Other mental Disorders	અન્ય માનસિક વિકૃતિઓ

DSM - I Models of Abnormal Behaviour :

Many psychologists have conducted researches on how abnormal behaviour emerges. And by keeping in the centre the special symptoms of abnormal behaviour, its causes and treatment based on these researches, models describing the explanation of abnormal behaviour are given in psychology :

- (1) Biological Models
- (2) Psychological Models :
 - (i) Psychoanalytical Model
 - (ii) Behaviouristic Model
 - (iii) Cognitive Model

1. Biological Model :

This model considered central nervous system, heredity, brain pathology and bio-chemical imbalance responsible for the abnormal behaviour.

The model is also known as 'Medical Model' or 'Disease Model'.

The excessive and normal functioning of central nervous system affects the behaviour of an individual. Central nervous system includes brain and spinal cord. The base for the cognitive and mental functions is brain. So in case of injury in brain abnormal behaviour can be produced.

For abnormal behaviour the direction of nerve cell and neurotransmitter is also responsible. Usually, instead of travelling from one neuron to the other, the nerve impulse come back to the same neuron which is known as reuptake. This neurotransmitter imbalance can result in abnormal behaviour.

To some extent heredity is an important causal factor for abnormal behaviour. The genes inherited by the parents transmit the heredity; in which along with the physical characteristics, psychological disorders or abnormalities are also transmitted. Paykel (1982) carried out the study on depression and proved the importance of heredity in abnormal behaviour. Neil & Olta- Mannas (1980) showed that schizophrenia is a behaviour which is inherited. Mental retardation is also a genetically transmitted mental deficiency. The studies conducted by Coleman shows that if parents are having abnormal behaviour or suffering from some disorder then probability of having similar kind of abnormalities in blood relation increases. The probability of abnormal behaviour in the identical twins is more as compared to fraternal twins. If one of the child from identical twins is suffering from manic- depressive disorder there is 95.7% probability of having the same problem in the other child. It indicates the strength of the heredity factor.

The defective genes affect the endocrine glands, metabolism process and enzymes (pair of genes No. 13, 17 and 21). Due to deficiency or shortcoming of thyroxin hormone secreted from the thyroid gland, the mental retardation known as "Cretinism" occurs. The abnormality of the hormone of the adrenal gland, which is responsible for the responses to emotions, can produce some mental disorders. Because of the presence to enzymes, the chemical processes accelerate, its deficiency can have negative impact on the metabolism process. Obstacle in the metabolism process of the brain can cause mental disorders like epilepsy and phenyl pyruvic oligophrenia.

Modern biological model give more importance to bio chemical processes and brain functions along with heredity. For paralysis, delusion, Alzheimer's disease, memory loss etc. brain dysfunction is responsible.

In our body dopamine, nor-epinephrine, serotonin, GABA etc. bio- chemicals are present. The irregularity of these chemicals causes abnormal behaviour and mental disorders. e.g., change in the amount of dopamine can cause schizophrenia. Changes in GABA is responsible for anxiety disorders. Serotonin plays an important role in combat and emotional disorders.

2. Psychological Model :

In psychological model studies regarding the responsible factors for abnormal behaviour like personality factors, traumatic experiences and the childhood experiences are conducted. As a result of an effort to

understand abnormal behaviour different approaches of psychology came into existence. Important models are as under:

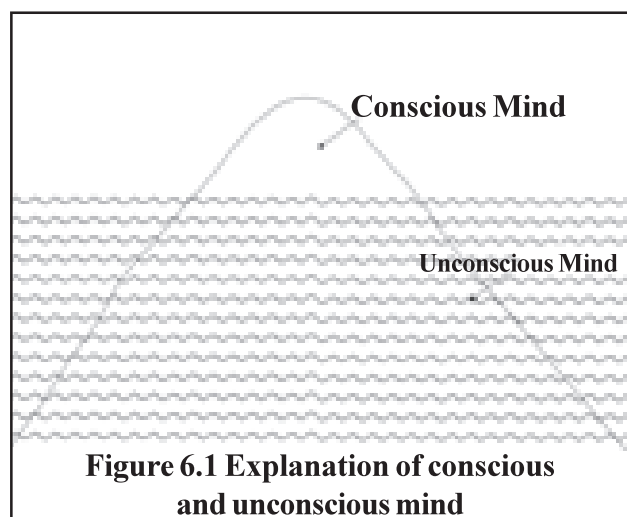
- (I) Psychoanalytical Model
- (II) Behavioural Model
- (III) Cognitive Model
- (IV) Humanistic Model
- (V) Interpersonal Model

(I) Psychoanalytical Model :

Psychoanalytical model is based on the ideologies of Dr. Sigmund Freud. He gave this model on the basis of his clinical experiences. The main concepts of his model are as under:

(a) Conscious - Unconscious Mind :

According to Freud the repressed feelings, emotions and bad experiences in the unconscious mind are responsible for abnormal behaviour. He stated that conflicts between conscious, subconscious and unconscious mind lead the individual towards abnormality. Conscious mind is marked with events and experiences of which person is completely aware of. In unconscious mind, repressed feelings which are challenging, sad and insulting are stored. All feelings and emotions which are immoral and socially not acceptable are pushed to the unconscious mind. The individual is not aware about the feelings stored in the unconscious mind.



Freud gives the example of an iceberg to explain the concept of conscious and unconscious mind. When we have a look at the floating iceberg in the sea, only a small part of it which is coming out of the water level can be seen and the major part of it remains inside the water. He considered the part of the iceberg which floats inside the water as an 'unconscious mind' and the floating part above the sea level is the 'conscious mind'.

The unconscious material, continuously seeks expression in some or the other way. It comes out in the form of fantasies, dreams, slip of tongue and through abnormal behaviour like (nail biting, involuntary movement of the leg and doing the same activity again and again) or sometimes in the form of diseases.

(b) Id, Ego, Super Ego :

Freud theorised that a person's behaviour results from the interaction of three key components of the personality, the id, ego and super ego.

The id is the source of instinctual drive and follows pleasure principle.

These drives are of two opposite types :

- Life instinct
- Death instinct

Life instinct is a constructive drive primarily of a sexual nature, which constitutes the libido or Eros, the basic energy of life.

Death instinct is a destructive drive and tend towards aggression, destruction etc. Aggression has two directions - External and Internal. When it is externally directed the behaviour like biting, quarrelling, murder, harm to others etc. occurs. When it is directed internally, the person will harm himself by nail biting, peeling the skin from the fingers etc. In extreme cases it leads to suicide.

Ego is based on reality principle. Consequently, after the first few months of life a second part of the personality, as viewed by Freud, develops the ego. Ego acts as a controller and it is associated with conscious mind. Ego seeks to satisfy an individual's instinctual needs in accordance with reality.

Super ego is associated with idealism and morality. It is related to the rules and regulation of the society, ideals, traditions and customs and beliefs. It distinguishes between right and wrong, proper and improper on the basis of morality. Person whose super ego is properly developed, internal control system develops and moral values become strong.

The inner mental conflict arises because the three subsystems are striving for different goals. These unresolved conflicts lead to mental disorder.

(c) Psychosexual stages of development :

Freud conceptualized five psychosexual stages of development.

- **Oral stage :** This stage is from birth to 2 years of age. During the first two years of life, the mouth is principal erogenous zone. An infant's greatest source of gratification is through sucking, a process necessary for feeding. A child feels pleasure by sucking or putting things in the mouth in this stage.

- **Anal stage :** This stage is from two to three years. The anus provides the major source of pleasurable stimulation. During the time toilet training is going on and rules of cleanliness are taught to the child. The child experiences the feeling of control for the very first time at this stage.

- **Phallic stage :** This stage is from the age of 3 to 6 years. Self-manipulation of genitals provided the major source of pleasure. The 'Oedipus complex' in which male child is attracted to his mother and in 'Electra complex' attraction of a girl to her father develops during this stage.

- **Latency stage :** This stage continues from 6 to 12 years of age. Here sexual motivations recede in importance as a child becomes preoccupied with developing new skills and other abilities.

- **Genital stage :** This stage of development starts from 13 year of age. At this stage the deepest feelings of pleasure come from having sexual relations with the members of opposite sex.

Freud believed that appropriate gratification during each stage is important. If a person is fixated at any level, it leads to the abnormal behaviour. For example a person who is fixated at the oral stage may prone to smoking, alcohol and eating disorders.

(d) Anxiety and Defence Mechanism :

In the model given by Freud anxiety is at the centre. He mentioned three types of anxiety :

- **Realistic Anxiety :**

It is associated with the challenges from the outer environment. It is also known as objective anxiety.

- **Neurotic Anxiety :**

For this type of anxiety mental conflicts and insecurities are responsible, which are extreme in nature. A person having neurotic anxiety is unaware about the causes responsible for anxiety.

● **Moral Anxiety :**

Anxiety which is developed when a person is doing activity which hurts the super ego is known as moral anxiety.

Usually a person is continuously trying for finding the ways, facing the environmental challenges and anxiety experienced from that. But when he is incapable of reducing the anxiety by conscious efforts, he unconsciously tries to save the ego from getting hurt. Freud calls it 'defence mechanism'. Projection, rationalization regression etc. are the examples of defence mechanism. Usually many people are using defence mechanism, at different occasions, but its excessive use can produce abnormal behaviour.

So, Freud's psychoanalytic model includes the concept of conscious, unconscious, repression, instincts, id, ego, super ego, stages of psycho-sexual development, anxiety and defence mechanism.

(II) Behavioural Model :

This model was developed by J.B. Watson the promulgator of behaviourism. According to him the normality and abnormality of the behaviour of an individual depends on the environment. An individual learn the behaviour patterns by interacting with the environment, by experience and practice and by the reward given for the reactions given by him. Continuous similar and consistent behaviour patterns formulate a habit. When a person learns maladjusted behaviour patterns from the environment, the abnormal behaviour is produced. If we can change the nature of the learned behaviour patterns, then the maladjusted behaviour can become well-adjusted and normal behaviour can be developed.

The explanation of the question how an individual learn behaviour patterns from his environment is given by two main processes:

1. Classical conditioning

2. Operant conditioning

The classical conditioning principal is given by Russian physiologist Evan Petrovich Pavlov. Classical conditioning put stress on the association between stimulus and response. You have already learned the Pavlov's experiment in chapter-2. The natural stimulus, the CS acquires the capacity to elicit biologically adaptive responses through repeated paring with the unconditioned stimulus. Classical conditioning has its own importance in the field of abnormal psychology because many of the physical and emotional responses like anxiety, phobia, sexual arousal, alcoholism or drug dependency are mostly learned by conditioning. For e.g., one can learn a fear of the darkness if fear producing stimuli (such as frightening dreams) occur regularly during conditions of darkness, which produces fear of that situation and then it is associated with the darkness and unknown person, so the stimulus which produces phobia or fear and anxiety are not as fearful as described by the person.

In classical conditioning the unconditioned stimulus (food) and neutral stimulus (bell) were presented in pair, than the conditioning will be strong. But after the presentation of neutral stimulus (bell) the presentation of UCS (food) is delayed then learned conditioning becomes weak or the conditioned response will gradually extinguish, which is known as 'extinction'. For the abnormal behaviour like fear and anxiety this method of extinction is used.

Prof. B.F. Skinner's name is associated with 'Instrumental conditioning' which plays an important role in shaping the behaviour patterns of the children. In this conditioning reinforcement and schedules of reinforcement are in centre. Usually a person is trying to get the positive reinforcement and try to stay away from the punishment. Reinforcement develops the behaviour patterns of an individual. The type of behaviour

which elicits reinforcement becomes firm and the person will behave accordingly.

Skinner tried to explain the adjusted and maladjusted behaviour by the hypothesis of reinforcement and stimulus discrimination. When a person learns to discriminate between two stimuli, then he will be able to adjust with the situation. From the stimulus present, what type of response is to be given to which stimulus and what will be the outcome, understanding of this situation will help the person to get adjusted with the situation while a person who lacks this type of understanding is becoming the victim of maladjustment and gives birth to the abnormal behaviour in long time. From the two stimuli, if a person is able to recognize the maximum useful stimulus and while responding to that stimulus if he gets failure again and again, it will lead to depression.

So behaviourist model by keeping the learning in centre and on the basis of environment and reinforcement gives the explanation of abnormal behaviour.

(II) Cognitive Model :

Behaviourist accepted only those behaviour patterns which we can observe, can be measured and can be tested by others, and only those behaviour patterns are included in the subject matter of psychology. Behaviourist rejected the effect of mental and cognitive processes on the behaviour, because mental and cognitive processes cannot be observed directly. In contrast cognitive model involves the study of basic information processing mechanisms, such as attention and memory, as well as higher mental processes such as thinking, planning and decision making on the behaviour of an individual. The interpretation of the situation is more effective than the situational factors. An individual behaves in the same way he interprets the situation. So, the normality and abnormality of the behaviour depends on the interpretation done by the individual.

In cognitive model more importance is given to information processing. In this processing, how individual comprehend the environmental factors or situations, gave importance to which incidents and retain them in the memory and also how he uses the experiences associated with the incident etc. are included. In this processing three factors are included:

- a) Attention
- b) Memory
- c) Organising structure

(a) Attention :

Many stimuli are present around us that are capable of exciting our sense organs. But it is not possible to give attention to each and every stimulus. From the many stimuli present, focusing one's attention to the selective stimulus is known as selective attention. When the selective attention process is interrupted, many thoughts and excitements are experienced. As a result, the behaviour of an individual becomes maladjusted. One of the causes of psychoses is the obstacle or disturbance in the selective attention process. Gram (1999) and other researchers showed that, in the root of neurotic disorders the obstacle in the selective attention process is responsible. In the patients of depression more attention is given to the negative incidents of life.

(b) Memory :

From the experienced events or situations some are marked in our memory. The type of experiences and events that are retained in the memory of an individual also affects the behaviour of an individual. Abnormality and maladjustment can be seen in the behaviour and also in the interaction with others of those who retain more negative experiences than positive ones in their memory, For e.g., in the patients of depression, the amount of information about negative experiences is more than the information about neutral or positive experiences.

(c) Organising structure :

The experiences are not scattered in the mind of an individual but they are arranged in a pattern or in the organized form. As a result of organized experiences, the specific concept about oneself and one's environment is established. The concept of the self is developed on the basis of experience structure is known as 'self-schema'. Self-schema can be positive and negative in nature. e.g., if a child is accepted by his parents and other members of his family, is appreciated by them and his good qualities are praised, then the positive self-schema like 'I am good' or 'I am wise' develop. Opposite to that if the child is rejected by the parents, being insulted or punished often and continuously making him realise about his mistakes, then negative self-schema like 'I am naughty', 'I am useless' etc. develops. The amount of negative self-schema is more in the people who commit suicide.

Albert Bandura, a learning theorist who developed a cognitive behavioural, perspective, places considerable emphasis on the cognitive aspects of learning. Bandura stressed that human being control their behaviour by internal symbolic process or thoughts. We do not always require external reinforcement to alter our behaviour patterns. With our cognitive abilities, we can solve many problems internally. Human beings have a capacity for self-direction Bandura in 1974 developed 'Self Efficacy theory' by studying the ability of self-direction in an individual.

Attribution theory is an important theory of cognitive model. Attribution simply refers to the process of assigning causes to things that happen. We may attribute causes to external events. For aggressiveness and anti-social abnormal behaviour, external attribution and for the disorders like anxiety, depression, suicide etc. internal attribution is responsible.

The cognitive model gives importance to the perception of the situation or interpretation of experiences. Instead of situation itself the interpretation of the situation decides the intensity of emotions and normality of an individual. We cannot change the situation but by changing the interpretation regarding that situation can be helpful in avoiding the abnormality of behaviour.

So, in cognitive model normality and abnormality of behaviour is shown by studying the mental processes responsible for the behaviour.

Causes of Abnormal Behaviour :

Many causes are responsible for the abnormal behaviour. They are divided into three parts :

- 1) Biological causes
- 2) Psychosocial causes
- 3) Sociocultural causes

1. Biological Causes :

For abnormal behaviour nerve impulse, synapse (space between two nerve cells), imbalance of endocrinal gland, faulty genes, physical structure, laxity of brain and absence of physical health are responsible.

For the proper coordination of brain and motor functions the role of nervous system is important. Nervous system is made up of cells which are known as 'neuron'. The nerve impulse reaches from sensory organs to brain and then the orders given by the brain reach to the motor organs through neurons. From one neuron the messages and orders reach to the other neuron by nerve impulse. Nerve impulse is electrical chemical process. One neuron is not continuously connected with the other neuron. The space between two neurons is known as synapse. For abnormal behaviour the imbalance of nerve impulse, synapse and the chemicals in them play an important role.

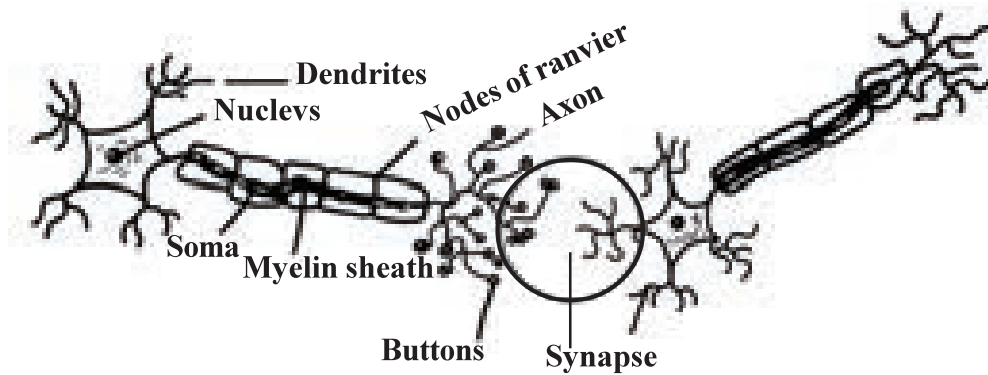


Figure 6.2 Figure of synapse

The imbalance of nerve impulse is responsible for mental stress and onset of abnormal behaviour. When the nerve impulse is excited, the special chemical from the nerve fibre enters the synapse due to which abnormal behaviour is produced.

Usually, instead of travelling from one neuron to other, the nerve impulse come back to the same neuron which is known as reuptake. Because of that, possibility of having disorder like depression increases. This process is slowed down by using anti depressive drug like Prozac.

In synapse bio chemicals like dopamine, norepinephrine, serotonin, GABA etc. are present. Imbalance of these chemicals produce abnormal behaviour. Irregularity of dopamine is one of the reasons of psychoses. Norepinephrine plays an important role in reacting to the challenging, dangerous and shocking situations. Because of the imbalance of norepinephrine, possibilities of having trauma disorders, heart problems, paralyses etc. increase. Imbalance of serotonin plays an important role in depression, trauma and emotional disorders. For anxiety disorder the amount of GABA is effective.

The imbalance of endocrine gland is responsible for behaviour disorders, mental retardation and psychosomatic disorders. The shortcoming of 'thyroxin' from thyroid gland causes cretinism. Irregularity of Pancreatic gland can cause psychosomatic disorders like diabetes.

Defect of Adrenal gland which is associated with emotions, can cause abnormal behaviour.

Genes transmit heredity of physical and mental characteristics. Based on intelligence and certain mental disorders also depends on genetic factors.

Commonly in our body we have 46 chromosomes. But instead of 46 if someone is having 47 chromosomes, mental disorder like Down's syndrome can develop. Along with the environment, heredity also plays an important role in the mental disorders like psychosis, alcoholism, substance related dependency, depression etc.

As seen in the classification given by Kretschmer and Sheldon endomorphic person are more prone to manic depressive disorder and mesomorphic person are prone to psychosis. The centre of all mental and cognitive ability are in the brain. The injury in the certain part of brain can cause behaviour disorders like memory loss, sleep walking and Alzheimer's disease.

2 Psychosocial Causes :

For abnormal behaviour along with the biological causes psychosocial causes are also responsible. The life experiences, problems, challenges, difficulties etc. play an important role in shaping the behaviour. In psychosocial causes, childhood deprivation or trauma, problems in marriage life, divorced family, improper behaviour of parents etc. are included.

The effects of childhood experiences are lifelong on the mind of an individual. Parents satisfy the needs of their children and provide support, security and warmth. But if parents are unable to do so, then the child will start experiencing abnormal behaviour. The amount of abnormal behaviour is seen more in the children deprived from their parents. Those children who are sexually abused or have become the victim of sexual aggressiveness are more prone to abnormal behaviour. Family provides foundation for socialization. The process of socialization is important in making a child a social person. The beginning of interaction with other people starts from home. If parents are not able to have satisfactory adjustment with others, are not sensitive to others and are trying to take advantage of others, such parents are not able to develop proper socialization in their children. The family background, residence, the number of people in the family etc. factors also affect the normality of the individual.

So the normality of the individual depends on the parents, family, peers, friends, residence or work-place and interaction with other people.

3. Sociocultural Causes :

Sociocultural factors also have an impact on the behaviour and personality of an individual. Every culture has its own rules, traditions and moral values. They affect the child rearing practices, interaction with others, group attitude and their viewpoint about life. The internal weaknesses of society and culture are risking the normality of an individual. The researches based on culture shows that, as compared to eastern culture, the followers of western culture are more prone to abnormal behaviour.

Margaret Mid carried out study on the two tribal communities of New Guinea - Mundugumor and Arapesh, told that due to the different sociocultural environments of the two races living in the same physical environment, the Arapesh caste people are more liberal, calm and cooperative while the people of Mundugamor caste were more speculative, competitive, aggressive and quarrelsome.

The studies conducted by Banner show that as a result of long term unemployment, mentality of depression, frustration, aggressiveness guilt and anti-social personality can be seen.

In this way sociocultural factors influence the normality of behaviour.

Major Psychological Disorders :

Internationally, the classification of mental disorders is given in the DSM. The mental disorders are classified on the basis of their causal factors in DSM.

Here we will study anxiety related disorders, mood disorders and learning related mental disorders.

1. Anxiety Related Disorders :

Incidentally experiencing anxiety is a common life event. When we are finding difficulty in finishing some work, when the exams are nearby, if we are supposed to take some important decisions of our life, we all experience anxiety. So we can say that anxiety is a common mental experience. When the amount of anxiety crosses the normal level it becomes disorder. A person suffering from anxiety disorder cannot reduce their anxiety. The excessive amount of anxiety creates negative impact on the everyday activity like job and family responsibility, school activities and interpersonal relations.

Now we will discuss the three main anxiety disorders in details :

- i) Generalised Anxiety Disorder
- ii) Phobia
- iii) Obsessive - Compulsive Disorder

(I) Generalised Anxiety Disorder :

Generalised anxiety disorder is also known as "free floating anxiety". In this disorder the person does not experience anxiety in relation to some specific object, experience or situation. In the U.S. population the proportion of this disorder is 3.1%, which means around 6.8 million youngsters are suffering from this disorder. In India also it is in great number. In females this disorder is more common compare to males.

The symptoms of generalised anxiety disorder shown in DSM-V are as under :

- 1) Continuous presence of excessive anxiety regarding any topic, activity or episode for at least six months.
- 2) Lack of control on his/her own anxiety.
- 3) Presence of any three physical and cognitive symptoms from the following :
 - Getting tired easily
 - Problem in concentrating one's attention
 - Physical restlessness
 - Extreme sensitivity
 - Muscular tension
 - Sleep disturbances

In most of the people physical symptoms like, excessive sweating, feeling nauseatic, diarrhoea, shivering, difficulty in breathing, increase in heart rate, having cold on and off, becoming unconscious etc. can be seen. The psychological symptoms of GAD are lack of concentration, worry and apprehension, lack of control on thoughts, sleeplessness, stammering or stuttering and fear of death.

Uncontrolled anxiety experienced by an individual creates obstacles in everyday activities of an individual and individual is not able to fulfil his responsibilities. As a result person is not able to maintain family and business relations and find it difficult to complete the work given in an allotted time.

(II) Phobia :

Fear is an emotion and its experience is universal. Up to some extent every person experiences fear about some or the other situation. e.g., fear of death, fear of natural calamities or fear of failure etc.

At the time when the real situation is fearful the feeling of fear is a common experience, but in the situations that are not so fearful, the experience of extreme level of fear in such situation is known as phobia. Such fears are irrational and without any cause. It is a constant fear of the objects that are not fearful. The intensity of the experience of phobia is higher. No intellectual reason can be seen for phobia.

In DSM-V among the disorders associated with phobia three disorders are shown. All these disorders are actually included in the classification of anxiety disorders. Three disorders are as under :

- (a) Specific phobia
- (b) Social phobia
- (c) Agora Phobia

(a) Specific Phobia :

Specific Phobias are those that are attached to some specific objects or situations. The onset of this disorder can be seen from the childhood. Its prevalence in U.S. is 8.7%, which means that 19 million people are suffering from this disorder.

The symptoms of specific phobia shown in the DSM-V are as under :

- 1) It is not associated to all situations but to some specific objects or situations.
- 2) Compared to reality it is more extreme and illogical fear.
- 3) While facing the fearful situations the physical problems of the individual increases and some symptoms of anxiety disorders can be seen.
- 4) While facing the fearful situations the symptoms of panic attack like crying, getting stunned, trembling etc. can be seen.
- 5) Trying to avoid the fearful situations.
- 6) Trouble in decision making and in maintaining interpersonal relations.
- 7) Presence of the symptoms of specific fear for more than 6 months.

Five types of specific phobias are described in the DSM-V :

* **Animal type** : This type refers to fear of spider, lizard, dogs, insects etc.

• **Natural Environmental type** : Fear of water, high altitude, darkness and cyclone are included in this type.

• **Blood-Injection-Injury type** : Fear of blood, testing of blood or check-up, injection, seeing the surgery going on etc.

• **Situational type** : In this type, fear of specific situations like going in the lift, use of escalator, travelling by plane or railways etc. are experienced.

• **Other type** :

In this type, feeling of choking or vomiting, fear of becoming a victim of some incurable diseases etc. are included. The fear of bursting of balloon in children also comes into this category.

(b) Social Phobias :

Social phobias are also known as social anxiety disorder. From 1960 social phobias are explained separately from other phobias.

Social phobia is a common disorder. Prevalence of this disorder is more in females than in males. Usually this type of phobias develop during teenage and on the onset of adolescence. 40% of the people suffering from this disorder are also having the symptoms of anxiety disorder and depression.

In social phobia person is irrationally afraid of some social situation. A person is feeling discomfort in social interaction and is afraid of negative evaluation by others.

Presence of other person and the discomfort experienced while interacting with them produce fear and anxiety. Due to that physical symptoms like perspiration, breathing difficulty, increase in the heartbeat, feeling nauseating etc. can be experienced. Usually people suffering from social phobia are getting disturbed due to the presence of other people in many social situations. A person suffering from this type of disorder continuously feels that other people are trying to carry out deep investigations of their behaviour and other people are present there to show him inferior or to make him suffer. So this person is either trying to avoid those situations or baring the situation with lot of stress. Specially, the situations like delivering lecture in public, using public toilet, eating in public etc. make the person fearful in that situation.

(c) Agora Phobia :

The word agora phobia has derived from the Greek word “Agora”, which means public place. Usually a person suffering from agora phobia firmly believes that when fearful situations occur, he will not get the support of the other people or it will be difficult to transfer himself to a safe place from the fearful situation. So they avoid going alone in the streets, in social gatherings, in the shopping centres, theatres, playgrounds etc.

Handling the situations like standing in the queue, using the public transport, passing from the bridge etc. alone become difficult for the person. If fear and anxiety of any two situations from the five shown in the DSM-V are experienced for more than six months, then we can say that a person is suffering from Agora phobia. The five situations shown in the DSM-V are as under :

- 1) Use of public transport like bus, train, aeroplane etc.
- 2) Reaching the open space like parking plots, market or on the bridge.
- 3) Reaching the covered or closed places like shop, cinema hall etc.
- 4) Standing in the queue or going out in the crowd.
- 5) Going out of the house alone.

People suffering from Agora phobia are either avoiding the above mentioned situations or feeling extreme stress while facing such situations.

(III) Obsessive Compulsive Disorder :

Obsessive compulsive disorder is known as OCD. It is an inappropriate, illogical, unpleasant thought or performing actions which are useless and senseless.

According to DSM-V in obsession a person is continuously having unrealistic, irrelevant, meaningless thoughts and imaginations. Usually this type of thoughts are regarding sufferings from some ter-

rible disease, killing of near and dear ones, getting injured, throwing himself or others from the high buildings or place, regarding the security of the family members, sexuality and religiosity etc. These thoughts create disturbance in the everyday work of an individual. A person knows that these thoughts and fantasies are improper, but cannot stop them, neither is able to avoid them.

In compulsive disorder a person is performing particular action without any logical reason. According to DSM-V activities like repetitive hand washing, counting numbers / figures, checking the fan, light and tap again and again, repeating same action or arranging the things over and again etc. are carried out by a person. Like obsession in compulsion also, a person is aware about the illogicality of his actions but not able to establish control on it. 2.5% people have experienced this disorder anytime in their life, Gender differences are not seen in this disorder. Usually the proportion of this disorder is more in the people who are divorced, detached emotionally from the family due to some reasons, unemployed and feeling anxious due to the guilt.

2 Mood disorder :

Usually every person experience feelings and emotions. Feelings and emotions are the common factors of mental world. We never experience same amount of feelings and emotions, in every situations, we feel ups and down in that and sometimes its intensity also changes. e.g., a feeling of being pushed in the crowd of bus and someone pushed you in public by speaking insulting words, in both the situations the intensity of the anger emotion is different. So change in the feelings and emotions is common, but when feelings and emotions become out of control then it will be difficult to adjust with. When the emotions of an individual become harmful for himself and for the society at that time we can say that person is having mood disorder.

In DSM-V mood disorders are explained under the title Bipolar and Depressive disorder. Among all mood disorders we will get detailed information about Unipolar and Bipolar disorders.

(a) Bipolar - I disorder :

Bipolar - I disorder is known as depressive disorder. The main symptom of this disorder is depression. If the symptoms like reduction in the physical needs like hunger and sleep, reduction of weight more than 10 kg within three months (without any medicine or physical strain), sleep disturbances, lack of interest, reduction in feeling of joy, experience of uselessness, thinking about committing suicide and sometimes trying to do so etc. are seen in the behaviour of a person for at least two weeks then we can say that, a person is suffering from Bipolar - 1 disorder.

(b) Bipolar - II disorder :

In bipolar - II disorder both depressed and maniac emotions are simultaneously experienced by the patient. In this disorder mild mania is already experienced by the person, in which a person is becoming more irritating. But change in his nature does not create obstacle in his social and occupational responsibilities and he is not required to get hospitalised. So this symptom is not known as symptom of the disorder. It gradually turns from mild to moderate. A person becomes impatient and

unable to concentrate on one thing for a longer period of time. When mania and depression both disorders are experienced at different time intervals it is known as bipolar - II disorder.

3 Learning Related Mental disorder :

Learning related mental disorders are seen in childhood. In this disorder the child's ability to learn coordination between the muscles and physical activities and difficulty in communicating with others etc. are interrupted. A child having this type of disorder finds difficulty in understanding new and complex informations. He takes more time in learning routine activities like closing the buttons of the shirt, combing the hair properly by looking at the mirror etc. according to maturity by his age. A child finds it difficult to understand verbal and nonverbal language. Difficulty in thinking and logical ability can be seen.

(a) Dyslexia :

In DSM-IV dyslexia was included in the learning related disorder while in DSM-V it is included in the specific learning disorder. A survey conducted in the American school children found that in 17% of the American school children this disorder can be observed. According to one survey amount of dyslexia in India is 9.87%. This disorder is seen more in the girls as compared to boys.

In the different age groups different symptoms of dyslexia can be seen. But the common symptoms derived from that are as under :

- 1) Compared to other children the ability to speak in a dyslexic child is delayed.
- 2) Difficulty in the clear pronunciation of the words.
- 3) The speed of learning new words is less and also finds it difficult to recall the learned words.
- 4) Inability to understand the words.
- 5) Failure in differentiating the similarly pronounced words.
- 6) Difficulty in the writing skill of a language (making mistakes in writing the alphabets like w, m, p, q, b,d etc.)
- 7) Difficulty in reading and experiencing hesitation in speaking in the class amongst other children.
- 8) Lack of motivation to get educational achievements.

The disorder that is developing due to the defects of heredity or nervous system should be known as inability rather than disorder. If a child with this type of inability is trained properly and if the capacity of the child is found and properly nurtured the child definitely will be able to progress in his life. The film 'Tare Zameen par' provides best example of this disorder. In real life examples we can see that Thomas Alva Edison, George Washington, Albert Einstein, Leonardo da Vinci, Bill Gates etc. were suffering from dyslexia in their childhood.

(b) Autism :

In diagnostic language autism is known as 'Autism Spectrum Disorder' (ASD). In DSM-V autism is described by connecting it with social communication disorder. Autism is a developmental disorder.

On 27th March, 2014, American organization 'Centre for Disease' studied the rate of autism and showed that out of 68 children, 1 child is having this disorder. Out of 42 boys 1 boy and out of 189 girls 1 girl is suffering from autism. The rate of this disorder is more in boys than girls. According to the research conducted in India in 2013, the rate of autism in India is 1 to 1.5 %.

Autism is a complex development disorder, the symptoms of which can be seen in the first three years after the birth. The disorder develops due to the deficiency of nerve cells, affects the normal functioning of the mind. Its effects can be seen in the social interaction and verbal and non-verbal communication. Autistic child does the same activity again and again, cannot talk to others by keeping eye contact with them, usually avoiding the eye contact with others, usually likes to play alone, can't express his ideas and feelings in front of others, keeps on repeating the instructions given to him. e.g., if mother tells the child "You come here", the child will keep on repeating the same words "You come here" again and again, laughing irrelevantly or keeps on smiling. He is not afraid of realistic fearful situation, not experiencing pain and keep on moving anything round and round.

Autistic children are having sleep disturbances and digestion related problems. So these children should be given behaviour therapy along with the medicines.

(C) Attention Deficit Hyperactive Disorder (ADHD) :

DSM-V the disorder related to problem in retaining attention and extreme unsteadiness in children is included in the neuro-developmental related disorder.

The research conducted on children between 4 to 17 years of age shows that the rate of this disorder in America is increasing year by year. In 2003 the rate of ADHD was 7.8%, in 2007 it was 9.5% and in 2011 it reached to 11%. In India also the rate of ADHD is about 5 to 10%. Generally this disorder is more seen in male child than in female child.

Mainly three symptoms are seen in the children having ADHD. They are inattentive, hyperactive and impulsive. These children are not able to concentrate on one object for a longer period of time, find it difficult to follow the instructions, not able to finish the assigned work, find difficult to complete the work by coordinating it as per planning, having day dreaming, not choosing the activity in which they are supposed to sit at a place for long time, not able to play calmly, are very talkative, always running here and there, climbing up and down things, not having patience to wait till their turn comes and hurry in answering the questions even before the question is completed etc. symptoms can be seen.

Friends, in this chapter we have collected information regarding abnormality of behaviour, its meaning and types. We have developed awareness and alertness about the physical disorders, but if we develop same amount of awareness and alertness about mental disorders, then it will be possible to save ourselves from many mental disorders. It can be treated by medicines and psychotherapy. By living aside our superstitions regarding the mental disorders and by adopting scientific view points for physical and mental health thus can get the holistic health.

Exercises

Section - A

Answer the following question by choosing from the options below :

- 1) Behaviour which is low in moral values is known as abnormal behaviour. Who has given this definition?

(a) James Page	(b) J. C. Coleman
(c) Warren	(d) C. T. Morgan
- 2) Which organization has given the classification of mental disorder at international level?

(a) WHO	(b) UNIS
(c) APA	(d) UNO
- 3) In which year DSM-V classification was published ?

(a) 2000	(b) 1980
(c) 2013	(d) 1952
- 4) From the following disorders which one is inherited ?

(a) Anxiety	(b) Psychoses
(c) Social Phobia	(d) Obsessive Compulsive Disorder
- 5) Which disorder is associated with brain dysfunction ?

(a) Alzheimer	(b) Agora Phobia
(c) Neuroses	(d) Social Phobia
- 6) The example of iceberg is related to which concept ?

(a) Psychosexual stage	(b) Dream state
(c) Conscious-unconscious	(d) Defence mechanism
- 7) Which subsystem follows 'Pleasure principle' ?

(a) Id	(b) Super ego
(c) ego	(d) self
- 8) What do we call the method used for retaining the ego unconsciously ?

(a) Repression	(b) Defence mechanism
(c) Personality	(d) Dream state
- 9) In which disorder a child repeats the instructions given to him again and again ?

(a) Autism	(b) ADHD
(c) Dyslexia	(d) Writing disorder
- 10) Which mental disorder is seen more in the lower middle class people ?

(a) Hysteria	(b) Psychosomatic disorder
(c) Frustration	(d) Obsessive Compulsive disorder

Section - B

Answer the following questions in one line :

- 1) By which other name social phobia is known ?
- 2) Give the full form of OCD.
- 3) In which type of disorder both the emotions mania and depression are present ?
- 4) Give the full form of ADHD.

- 5) Which organization is associated with the classification of mental disorder ?
- 6) Who was the founder of behaviourism ?
- 7) By which hypothesis Skinner tried to explain maladjusted behaviour ?
- 8) Which theory was given by Bandura by studying the ability of self- direction in an individual ?
- 9) Who gave the explanation of mental disorder based on physique ?
- 10) What do we call 'Autism' in diagnostic language ?

Section - C

Answer the following questions in about 30 words :

- 1) What is reuptake process ?
- 2) Explain the five situations shown in Agora Phobia.
- 3) Explain the effect of defective genes on the behaviour.
- 4) Explain the concept of 'ego'.
- 5) How cognitive model is different from other models ?
- 6) Explain phobia and its types.
- 7) Explain the table showing the various editions and publishing year of DSM.
- 8) Explain the concept of super ego.
- 9) Explain the memory factor of cognitive model.
- 10) Explain the behaviour disorder produced by the imbalance of endocrinal gland.

Section - D

Answer the following questions point wise (about 50 words) :

- 1) Explain the types of anxiety in the theory given by Freud.
- 2) Describe 'Attribution Theory'.
- 3) Explain the effect of the chemicals of synapse on the behaviour.
- 4) Explain the types of specific phobia shown in the DSM-V.
- 5) Explain the symptoms seen in the children having ADHD.
- 6) Explain the word normal and abnormal.
- 7) Explain conscious mind and unconscious mind in short.
- 8) Explain the basic instincts of Id.
- 9) Explain organising structure as a factor of cognitive model.
- 10) Explain in short the effect of socioculture factors on the behaviour.

Section - E

Answer the following questions in detail (about 80 words) :

- 1) Explain the symptoms of dyslexia.
- 2) Explain in detail the psychosexual stages of development given by Freud.
- 3) Explain the behavioural model of abnormal behaviour.
- 4) Explain the psychosocial causes of abnormal behaviour.
- 5) Explain generalised anxiety disorder.



The concept of counselling in our society is old and famous from the ancient times. From old days people are used to seek advice or counsel from wise men, elders, religious heads or teachings in taking decisions regarding their knotty problems. In this type of counselling more attention was given to problem solving. In this decade a major change in the traditional concept of counselling is experienced. Today Psychology has developed into a formal systematic form. In ancient times there were many misconceptions regarding mental disorders. For treating the mental disorders people were contacting astrologers and the persons who exercise evil spirits, instead of medical treatments. Now awareness regarding mental health is increasing so in order to treat mental disorders and for counselling help is being taken by the trained professionals who have knowledge of psychology.

In this chapter we will discuss the meaning and difference between counselling and psychotherapy, steps of counselling, ethics of counselling process of psychotherapy and its approaches and psychotherapy. An Indian perspective.

Definition - Meaning of counselling :

In English we use the word 'COUNSELLING'. The word counselling is used in many ways. For example counselling is a process in a profession or expertise etc. with reference to the developed concept of counselling the definition of counselling are as under :

"Counselling is the series of contacts aimed at helping the person for changing his attitudes and behaviour."

- Carl Rogers

"Counselling is the happy relationship between professionally trained expert counselor and help seeker who seeks help for his personal affair."

- Peitrofesa, Hoffman and Spelte

In Counselling two or more than two persons personally come into contact. Interaction between them takes place and due to that special relationship gets established. This relationship becomes unique meaningful and compassionate. Most of the definitions indicate that as a result of counselling change or improvement in the behaviour can be seen. According to Lewise (1970) three elements can be seen in the definition of psychology :

(a) Counselee : A person who comes with psychological problems and seeks help for the solution of that problems is known as counselee or client.

(b) Counselor : For the solution of the psychological problems and for helping them a person with required qualifications and skills and professionally trained is known as a counselor.

(c) Interpersonal Interaction : The interaction between the counselor and counselee, as a result of which there are changes in the behaviour is known a interpersonal interaction. Here relationship between them becomes important.

In this way counselling helps in playing constructive role in his/her social environment. It motivates the individual to develop his inner abilities.

Steps of Counselling :

There are no fixed steps of counselling. It is a dynamic and changeable process. In order to understand the process of counselling, Brammer and Shortrom (1982) has given the steps of counselling which are as under :

(1) To know the purpose of the counselee for coming :

The aim of the first step of counselling is to make counselee capable of describing his problem.

(2) Establishing effective relationship :

The total counselling process depends on the trustworthy relationship between counselor and counselee. The success of this step depends on the ability to establish rapport.

(3) Coordination and decision of goals :

In this step clarification, limitations and goals of counselling process are included. This type of coordination gives map of the counselling route.

(4) Clarification of the problems :

In this step the clarification regarding the problems is explained. Here the problem is clearly explained to the counselee.

(5) Deal with the problems and goals :

By clarifying the nature of the problem, make required changes in the goal and deciding the plan for proceeding further becomes the main function of this process.

(6) To make a work plan :

Before ending the counselling process under the observation of counselor new planning and new behaviour patterns should be tried. According to Abhraham Maslow this type of experiences are self healing.

(7) Assessment of results and end of the counselling process :

Counselor provides his support till the counselee needs, but when counselee is ready to move ahead on his own the counselor ends the counselling process. The decision to end the counselling process depends on the evaluation of the progress towards the goals of counselling. So, all the steps of counselling are inter related.

Characteristics and skills of an effective counselling:

The characteristics of effective counselling shown by Petterson are as under :

- (1) Counselling from counselee's side is related to voluntary change in the behaviour.
- (2) The aim of the counselling is to create an environment which can simplify the voluntary change.
- (3) Counselling is an active listening process. But counselling is not only listening process.
- (4) As compared to others, counselor is better able to understand the counselee.
- (5) Counselling is conducted in the peaceful environment and the conversation is kept confidential.
- (6) The counselee is having psychological problem and counselor is having skill to solve that problems.

In short effective counselling helps the individual to learn about himself/herself, about his environment and about his role-behaviour. Patterson and Essenberg describes certain skills regarding effective counselling, like skill to cope up with the problem, the knowledge of special values of the counselee, ability to understand the behaviour of the individual without changing values recognizing the self defense behaviour patterns and ability to produce trust in the mind of counselee etc. becomes important. Here the role of the counselor becomes important.

So effective counselling is the result of scientific training, experience and special skills of a counselor.

Ethics of counselling :

Every profession has its code of conduct. Ethics refer to the ethical norms, values of the profession. Ethics of counselling is the guiding rules directing the relationship between counselor and counselee. The code of conduct suggested by American Personal and Guidance Association (APGA) are as under :

1 Relationship between the counselor and counselee :

- Counselor should respect the values of the counselee.
- Counselor should keep the personal matters of the counselee confidential.
- Interpretation of the test results should be done in such a way that it can make the counselee active in solving their problems constructively.

2 Relationship of the counselor with their occupation :

- Counselor should maintain the higher standard of counselling.
- Counselor should expect ethical behaviour from his co-workers.
- Counselor should be genuine in his relationship with counselee.

3 Relationship of the counselor with other reference organizations :

- It may happen that the counselor recommends the client to consult another consultant, sometimes to Psychiatrist also.

4 Relationship of the counselor with his own self :

- Counselor should not counsel at the cost of his/her personal life.

In India the code of conduct for the counselors are given by 'National Vocational and Educational Guidance Association' (NVEGA) in 1980.

Psychotherapy :

In human life mental and physical health is very important. For the physical problems, we take the treatment from the doctors. For the treatment of the mental disorders and for guidance the role of Psychiatrist, Psychotherapist and Clinical Psychologist becomes important. Here we will talk about Psychotherapy.

1. Definition of Psychotherapy :

In psychotherapy professional relationship is established between the trained psychotherapist and the counselee who is having problems clinician develops the resulting and acceptable behaviour patterns through which the problems of the patient or client get solved. As a result of which the mental health of the patient is improving. The various definitions of mental health are as under :

- Psychotherapy is the treatment of mental disorders by using psychological methods. - *James Drever*
- Psychotherapy is a process of solving problems or illness by using psychological methods. The problems solved by psychotherapy are usually emotional or psychological. - *Lehner & Cube*

So in Psychotherapy patient learn to change one's feelings and attitudes and also learn valid evaluation of the life events and experiences with the help of a trained expert therapist.

2. Difference between counselling and psychotherapy :

A close relationship can be seen between psychotherapy and counselling. Both the words are sometimes used as a synonym. Sometimes these words are used for showing different processes. Some experts have shown the difference between counselling and psychotherapy.

Bloch (1966), Peitrofesa Hoffman and Spelte (1984) by showing the difference between psychotherapy and counselling states that the aims of psychotherapy are theraputic where as the aims of counselling are developmental and educational.

According to Brammer and Shostrom the difference between psychotherapy and counselling is as under :

Psychotherapy	Counselling
1) It gives support and is helpful in the life crisis of the patient.	1) It gives acknowledgement to the usual life problems of the counselee.
2) It put more stress on the past experiences and trauma.	2) It gives more importance to the present life problems.
3) It gives importance to the subconscious and conscious mental operations.	3) It touches the conscious mental processes.
4) Here analytical view is adopted for the problems .	4) Here problem solving view point is used.
5) It is related to the treatment of severe type of emotional problems and neurosis.	5) It is related to the solution of the mild emotional problems.
6) Usually the process of psychotherapy lasts for the longer period of time.	6) Counselling process is for the short period of time.

3. Process of Psychotherapy :

The main goal of psychotherapy is to make the patient more creative self-aware and re-establish him in the social environment. The process of psychotherapy is divided into three parts :

(I) The Initial Phase :

In this phase first the therapeutic alliance is established which is known as rapport. Patient and psychotherapist both together undergo a contract to carry out therapeutic measures, decide their goals and objectives and also the limitations. This phase is important in many ways.

(II) The Middle Phase :

The middle phase is the real stage of undertaking processes of actual therapy. Some problems are created by his/her faulty learning. So the person has to relearn the new adjustive patterns, so that there occurs a positive change in the counselee. For that the therapist assures him about his/her unbiased attitude and confidentiality.

(III) The Phase of Termination :

After reaching the goals decided by the mutual consent of patient and therapist has to bring an end to his relationship. However the relationship is terminated formally but a follow up action is required to see that the counselee does not experience problems or difficulties during the tryout of newly learned adaptive patterns.

So compare to other therapies psychotherapy needs special abilities and skills.

4. Approaches to Psychotherapy :

Many viewpoints have been given regarding psychotherapy. These viewpoints are described by various theories and approaches. Now we will discuss some of the approaches of psychotherapy :

(I) Psychoanalytical Approach :

Sigmund Freud initiated psychoanalysis in 1880. It is the oldest among the methods used today. Psychoanalytic approach has played a theoretical role in the field of psychotherapy.

According to psychoanalytical approach the genesis of psychological problems lies in childhood experiences. The psychic traumas and experiences in undesirable situations in childhood stimulate emotionally impulsive states. These impulses are repressed and then they go to the unconscious mind. Clients spend a lot of psychic energy, to keep these impulses in repression and hence are left with little energy to live effectively.

The main steps of psychoanalysis includes catharsis, resistance and transference. In catharsis the patient feels relieved after expressing his all emotions in front of the therapist. During therapy suddenly stopping while expressing his emotions, forgetting and becoming sick etc. expresses the resistance of the unconscious mind of the patient. In transference, the client experiences the emotion of love, hate, anger, jealousy etc. towards the therapist and express them. Above all the methods like free association and dream interpreting are also used.

(a) Free Association Method :

In the use of free association techniques first the patient is put in a very relaxed situation and then he is asked to say whatever comes to his mind without thinking how shameful, painful, irrelevant or personal his/her ideas may be. The therapist puts together the patient's verbalizations into a meaningful pattern and explains the patient the meaning of his ideas from the unconscious. By understanding the repressed feeling the emotional tension built up in the patient reduces.

b) Dream Interpretation Method :

In the dream interpretation method the therapist gives a psychological interpretation of the dreams of the patients. Freud believes that during sleep the ego of the person is weak and not alert. So unsatisfied repressed desires struggle and strive to come out of the unconscious, which find expression through dreams, find expression in a symbolic form, which can be made meaningful through proper interpretation. Thus the repressed emotion, impulses and ideas in the patient brought to the conscious level.

The psychodynamic technique of Freud is a special contribution in the field of psychotherapy. But it has some limitations also. The therapist should be well experienced and mentally healthy. After Freud, Neo-Freudians also gave their contribution in the field of psychoanalysis by making changes in the original technique. Those who follow the thinking pattern of Freud are known as 'Psychoanalyst'.

(II) Behaviour Therapy Approach :

Behaviour therapy is also known as behaviour modification. J.B. Watson in 1920 in U.S. employed the principle of conditioning for the treatment of psychological disorders. After that behaviour therapy approach came into operation. Lindsley and Skinner coined the term behaviour therapy around 1950. According to behaviour therapy many of the psychological disorders are due to faulty learning. Therefore, the modification of this faulty learning requires relearning or new learning. Volpe employed the behaviour therapy technique for the treatment of phobia and anxiety related disorders.

The behaviour therapy includes various techniques called systematic desensitization, Bio-feedback, Impulsive therapy, Assertive training, Token economy, Modelling, Aversion therapy etc.

The explanation of the some of the therapies in short is given under :

(a) Systematic Desensitization :

This technique is associated with the relaxation state. Here the therapy is given by keeping in mind that a person cannot be both relaxed and anxious at the same time. The mode of treatment includes the stages like interview, training in relaxation, construction of anxiety hierarchies and desensitization.

(b) Flooding :

It is a powerful technique. In the treatment by flooding technique the patient is placed in a real life anxiety, producing situation and made to experience it. e.g., a person having a phobia of darkness is really

taken to the dark place and made to directly experience their fear. There is a need for taking care in the use of this technique.

(c) Assertive Training :

This training is helpful to make persons mind strong and to increase his self-confidence. A patient is given training to assert and express all forms of his emotions except his problematic worry and anxiety. A very timid or recessive type of person is trained and encouraged to be assertive and pushing.

(d) Token Economy :

In this method tokens like a card, a disc or a metal piece are used instead of money, and given to the patients performing certain types of desirable activities. The tokens thus gathered by the patients can be exchanged for the desired objects or activities. In children also this method is used for making the desirable activity firm.

In this way by using the appropriate techniques the behaviour of the patient is modified.

(III) Cognitive Approach :

This method was developed by Aaron Beck. This method or therapy is widely used for the treatment of depression. This therapeutic method helps the patient to recognise his negative thoughts, errors in thoughts and reasoning and misjudgements in interpretation. The therapist helps the patient to try out the new interpretations and find out new ways of thinking in the daily life. Beck's method has been successfully applied to panic disorders and anxiety disorders.

(a) Cognitive Therapies :

Albert Ellis and Aaron Beck are the pioneers in the use of this therapeutic technique. In last two decades there is a significant increase in the use of cognitive therapy due to their efficiency especially in the treatment of depression and anxiety. Here the term cognition refers functions like attention, judgement, learning, thinking, remembering and consciousness used in comprehending the world of our experience.

(b) Rational Emotive Therapy :

Ellis's Rational Emotive Therapy is one of the most widely used therapies which attempt to change the patient's basic maladaptive thought processes. Many people hold unrealistic beliefs and perfectionist values. These people invite failures, get disappointed and always live in misery and self-pity. These people fail in activity goals because of their faulty thought processes. Ellis's therapeutic method attempts to restructure the patient's self-evaluation and belief system and then ultimately change his thought processes.

In this way cognitive therapy has its own importance in the psychotherapy.

(IV) Rogers' Client Centred Approach :

Carl Rogers while working as a therapist developed client centred approach. In his book 'Counseling and Psychotherapy' in 1942, he presented this new approach, in which importance is being given to the quality of relationship between counsellor and counsellee. Rogers sees the therapist as a creator of comfortable environment, which helps the counsellee to proceed towards his self-development. This approach presents the positive and optimistic thought regarding human nature.

According to Carl Rogers aim of every individual is to be fully functioning and remain active. In Rogers' opinion higher is the coherence between individual's self-concept and his experiences, better will be his mental health.

Rogers' client centred therapy puts more stress on the relationship between counselor and counsellee. Here the skills of counsellor becomes more important than the counselling technique. The basic assumption of this approach is that if proper conditions for the development are established then the client will become

capable of gaining insight and will take positive and constructive steps towards the solution of their problems. In Rogers' approach following conditions are required for the treatment.

- (a) The direct psychological contact is necessary between the therapists and client.
- (b) The counselling becomes more successful when the client is at the lowest level of his anxiety.
- (c) In the relation between the counsellor and counselee, the counsellor should be frank and consistent with reference to words and feelings.
- (d) Here we should accept counselee as an individual and show respect to him/her.
- (e) Therapist tries to understand the client's feelings by imaging himself in the patient's situation and then proceed for the therapy.
- (f) The therapist tries to justify his understandings by asking the client and try to understand him.

In short, in this therapeutical process, when a client. consider himself ineffective in solving his problems, he gets ready for the treatment. He feels relaxed on the onset of the therapy. His thoughts are reconstructed. The client develops positive self-image, understand the reality and becomes able to face the real experiences independently.

This approach has put great impact on the counselling profession. This approach has developed new sight in the field of counselling.

So, all these approaches have important contribution in the field of counselling.

Therapy – An Indian Perspective :

When you have a look at ancient Indian literature, you will come across varieties of practices used for treating psychological disorders. There is mention of a number of therapeutic practices in Atharvveda, Charak Samhita, Yoga Sutra, Budhist and Jain literature. Today in the world many of these techniques are used for treatment of psychological disorders and maintaining physical as well as mental health. It's detail explanation is as under :

(I) Yoga : In Shrimad Bhagvad Gita, Yoga has been defined as 'a balance unbiased approach : Samatvam'. Yoga means restraining the various urges of the mind from being active. The term Yoga is derived from the verb 'Yuja' which means 'to join'. Yoga means to yoke, means uniting the individual spirit with the universal spirit.

Maharshi Patanjali has very systematically explained Yoga in his famous treatise Yogasutra. He has mentioned eight aspects of Yoga which are in a chronological order thought which the overall development of human personality is attained. They are known as steps of Yoga.

Samadhi	Rajyoga
Dhyana	
Dharana	
Pratyahar	
Pranayama	Huthyog
Asana	
Niyam	
Yam	

Figure 7.1 Steps of Yoga

(I) Yam : “Yam means not to indulge in negative behaviour.” It includes Ahimsa or nonviolence, Satya-truthfulness, Asteya- not stealing, Brahmacharya-celibacy and Aparigraha-not to possess. Ahimsa means not

to unnecessarily harm other living being in deeds, thoughts and language. Satya means not to tell a lie. Asteya means not stealing the things or physically taking something from someone else. Brahmacharya means not to have sexual life. Aparigraha means not to possess or accumulate things beyond one's actual needs.

(II) Niyam : "Niyam means observance of positive aspects in behaviour." It includes Shaucha, Santosh, Tapa, Swadhyaya and Ishwara Pranidhana. Shauch means purity of the internal as well as external body. Santosh means contentment with whatever one has. Tapa means train the body so that it becomes efficient to do particular tasks. Swadhyaya means to form habits of regular study of spiritual scripts. Ishwar Pranidhan means surrendering our self to the almighty.

(III) Asana : "Asana are special designs of postures that stabilise mind and body." It helps to maintain physical and mental health. Asanas are to be performed under observation of trained person and should be done comfortably.

(IV) Pranayama : 'Pranayama means regulation of inhalation and exhalation of breath.' Through this Pranayama control is gained over autonomic nervous system and over the mental functions. There are many types of Pranayama which should be performed under an expert's observation.

(V) Pratyahara : Pratyahara means withdrawal attention from or inhibiting attention to internal and external stimuli with the practice of Pratyahara one gets the help to reduce and control the learned or conditioned responses.

(VI) Dharana : "Dharana is the steadiness of mind. In this stage the practitioner keeps his mind empty of thoughts for a considerably long period and still continues to practice concentrating on one point or object."

(VII) Dhyana : "Dhyana means concentration on one object or stimulus. As a result of continuous deep concentration arises a feeling of unity of mind with the object of concentration."

(VIII) Samadhi : "Samadhi means a state where the subject and the object become inseparable." There are no problems and the person feels complete unity an identity with the almighty.

Today several miniature technique which may enjoying one, two or many steps of the yoga have been developed for treatment of mental, physical and psychological disorders.

(2) Transcendental Meditation :

Dhyana is the seventh step of Yoga. It is practiced widely worldwide as an independent therapy for maintaining the mental health.

Meditation is a state which is a trained habit of mind to concentrate on the outer as well as inner stimuli and the practitioner has a continuous, constant flow of energy towards the object in him. Meditation leads the person to his natural being and produce real awareness regarding self.

Maharshi Mahesh Yogi has spread the concept of Transcendental Meditation in the whole world. European and American laboratories conducted a series of research on Maharshi Mahesh Yogi's Transcendental Meditation. Results reveal that TM's regular practice leads to the benefits like improvement in physiological and mental function, reduces stress increase in the mental health and happiness and self-actualisation. In this types of meditation chanting of mantra makes the mind calm.

In modern days many methods of meditation have been spread worldwide. The recent researches conducted on meditation reveals that meditation increases physical and mental well-being, which in turn increases that effectiveness of the individual.

Exercises

Section – A

Answer the following questions by choosing the answers given below :

- 1) Which other word is used for counselling?
 (a) Guidance (b) Counselling (c) Help (d) Interview

- 2) How many steps of counselling are shown by Brammer and Shostrom?
(a) 5 (b) 6 (c) 7 (d) 9
- 3) Who has given the characteristics of effective counselling?
(a) Patterson (b) Morgan (c) J.B. Watson (d) Freud
- 4) The Ethics given by the 'APGA' has how many sections?
(a) 3 (b) 5 (c) 4 (d) 7
- 5) 'NVEGA' recommended the code of conduct in which year?
(a) 1980 (b) 1942 (c) 1960 (d) 1976
- 6) Who has given the definition "Psychotherapist is the treatment of mental disorders by using the psychological methods" ?
(a) Terman (b) James Draver (c) Freud (d) Lehner & Cabe
- 7) Whose name is associated with psychoanalytic approach ?
(a) Rogers (b) Freud (c) Terman (d) Ellis
- 8) Who has given the free association method?
(a) Rogers (b) Freud (c) Bloch (d) Ellis
- 9) Meditation includes how many steps?
(a) Seven (b) Six (c) Eight (d) Eleven
- 10) Which type of meditation was propoganded by Maharshi Mahesh Yogi?
(a) Vipasyana (b) Transcendental (c) Mindefell (d) Leshya

Section – B

Answer the following questions in one line :

- 1) Minimum how many people come into contact for counselling?
- 2) Which three common factors can be seen in the definition of psychology?
- 3) Which is the first step of counselling process?
- 4) What is the full form of 'APGA'?
- 5) Name the phases of process of psychotherapy.
- 6) By whom the behavioural approach is given the name behaviour therapy?
- 7) In token economy which type of tokens are being given?
- 8) Who gave the method of cognitive therapy?
- 9) Who developed rational emotive therapy?
- 10) By which name Rogers' approach is known?

Section – C

Answer the following questions in short (30 words) :

- 1) Give any one definition of counselling.
- 2) Whom can we call counselee?
- 3) Give any one definition of psychotherapy.
- 4) Describe any one method of psychoanalytic approach.
- 5) Name the methods used in the behaviour therapy.
- 6) What is flooding technique?
- 7) Specify the meaning of Yoga.
- 8) Name the eight aspects or steps of Yoga and explain 'Yam' is short.
- 9) Specify the meaning of Pratyahar.
- 10) Describe the advantages of meditation.

Section – D

Answer the following questions point wise. (50 words) :

- 1) Specify the meaning of counselling.
- 2) Give the meaning of counsellor and counselee.
- 3) Describe the references of the counsellor regarding his job.
- 4) Write three differences between psychotherapy and counselling.
- 5) What is the initial phase of psychotherapy?
- 6) Describe 'Dream Interpretation'.
- 7) Explain systematic desensitization.
- 8) Explain cognitive therapy.
- 9) Give the meaning of 'Niyam' and specify things included in it.
- 10) Write a note on 'Pranayama'.

Section – E

Answer the following questions in detail. (about 80 words) :

- 1) Define counselling and specify the steps of counselling.
- 2) Explain the code of conduct for counselling.
- 3) Write a note on the Rogers' approach.
- 4) Write a note on 'Transcendental meditation'.



Behaviour is the combined effect of individual's characteristics and his environment. The environment around us affects our thoughts, feelings and behaviour. The environment affects the human being and the humans affect the environment. Existing environmental conditions have created many problems for the present as well as for the future.

The physical environment includes forests and other geographical features like natural environment and also man-made environment like cities, residences, markets, offices, roads and railways. Physical environment influences our behaviour in many ways. Particularly climate, seasons, temperature has many effects. Extreme hot, cold, medium temperature, humidity, fog or rainy atmosphere also affect individual's performance and social behaviour. People who live in hot and humid atmosphere are more irritable and aggressive in comparison to people living in cold and dry climate. It has been observed that a cricketer playing in high temperature weather hits the ball more times which is an expression of his aggressive behaviour.

Environmental pollutions for which the humans are partly responsible have adverse effects on human performances. More physical and mental energies are consumed when we work in the noisy situations (conditions). In such conditions we tend to get irritated and fatigued and our reactions also become abnormal. All these facts indicate that natural environment is very helpful to us, therefore we have to make efforts to maintain the quality of the environment.

This chapter will help us to understand issues like the nature of relationship between man and environment, effects of environmental stresses in human, effect of human behaviour on the environment and preservation of environment. Man-Environment relationship and its factors:

Man-Environment Relationship and Its Factor :

1. Man-Environment relationship :

The environmental psychology is concerned with the mutual relationship between the psychological processes and physical environment, in which environment affects human behaviour and human behaviour affects the environment. When we are discussing about the physical world it includes the physical reality as well as socio-cultural phenomena around us. The surrounding physical phenomena consisting of the noise around us, temperature, the quality of air and water, the food which we take and its nutrition value and some other objects and things etc., constitute the physical world around us. The social environment around us includes, the stimuli received from our parents and others, attitudes of the peers, various types of challenges etc. The cultural environment includes man made concrete and abstract items like literary works, pieces of art and craft, special structures like Taj Mahal. The psychological processes include thinking, imagination, feeling, learning, motivation, emotions etc. Thoughts, feelings, perceptions, attitudes and other processes are known as behaviour in broad meaning. Environment is such a theme which is related to many other disciplines like geography, architecture, town planning etc. Thus, environment is multidisciplinary in true sense.

2. Factors Indicating Environment-Behaviour Relationship :

The relationship between environment and behaviour can be described by the main factors shown in the figure :

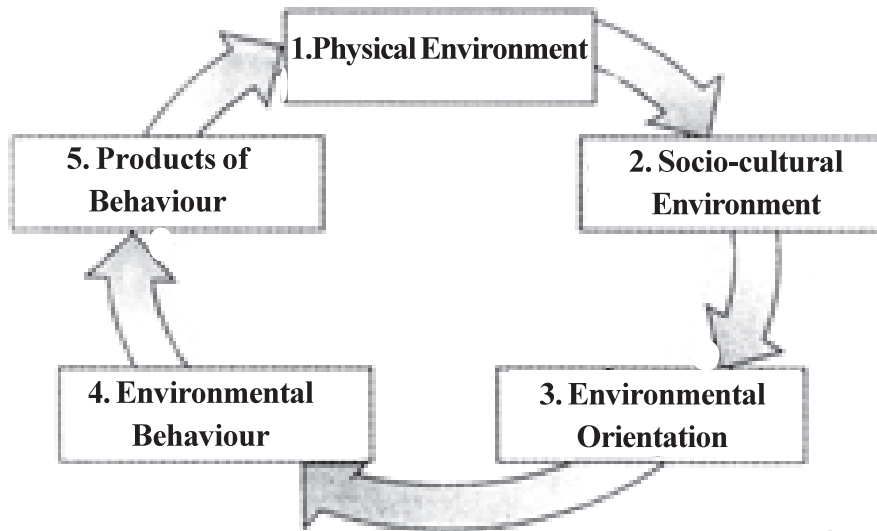


Figure 8.1 Aspects of human environment interface

As shown in the figure the five factors of human environment relation are described under :

(1) Physical Factors :

Physical factors include aspects of natural environment like climate, temperature, rainfall, flora and fauna.

(2) Socio Cultural Factors :

Socio Cultural factors include all aspects of culture such as norms, customs, attitudes, prejudices, beliefs and socialization process.

(3) Environmental Oriented Factors :

It is concerned with the belief that the people hold about their environment and also with the environmental inclination.

(4) Environment Related Behavioural Factors :

Environment related behavioural factors include the use of environment by the people on the course of social interaction.

(5) Products of Behaviour :

These include the outcomes of people's efforts such as homes, cities, dams, climate changes etc.

All these five effects of environment interact and determine the long-term psychological and environmental variables which are as under :

- (1) World view about human environment relationship
- (2) The concept about the environment and perceptions
- (3) The experiences such as personal space, territory, crowding and environmental stresses

These three aspects constitute the field of environmental psychology.

Before we discuss some of these aspects in subsequent sections of this chapter it is important to understand to different views regarding the development of concept about human environment relationship in various cultures. In this context there are three major views:

- (1) Human life is dependent on nature and controlled by the environmental forces.
- (2) Human life is an indivisible part of nature and human life and nature constitutes this universe.
- (3) Human being is above nature and it controls the environment.

In Indian cultural traditions the human environment relationship has been viewed as symbiotic type in which humans are part of the total existence. Its main features are as follows:

- Man is not superior to nature and has no right to exploit or abuse the nature.
- The human-nature relationship and totality of existence are important.
- Concern for everything regarding nature is perceptible in the Indian thought.
- All the life forms and their interconnectedness have been recognized.
- Human life is enveloped by a cosmic, physical order. It presents man, nature and universe in an integrated indivisible form.
- Humans and the rest of the living world are partners.

2. Models of Environment :

(1) Kurt Lewin's Model of environment

Kurt Lewin differentiates between the psychological environment and the physical environment. He has given the concept of life space to explain the nature of relationship between the person and environment. According to Lewin life space is the whole psychological reality which determines the behaviour (B) of the individuals. Life space (L) includes everything present in the environment that influences individual's behaviour. Environment (E) contains everything including physical, psychological and social aspects surrounding the individual. Lewin calls the person (P) in the environment (E) as life space. It can be described as $B=f(L)=f(PE)$ which is shown in figure 8.2.

E = Environment f =Function P=Person

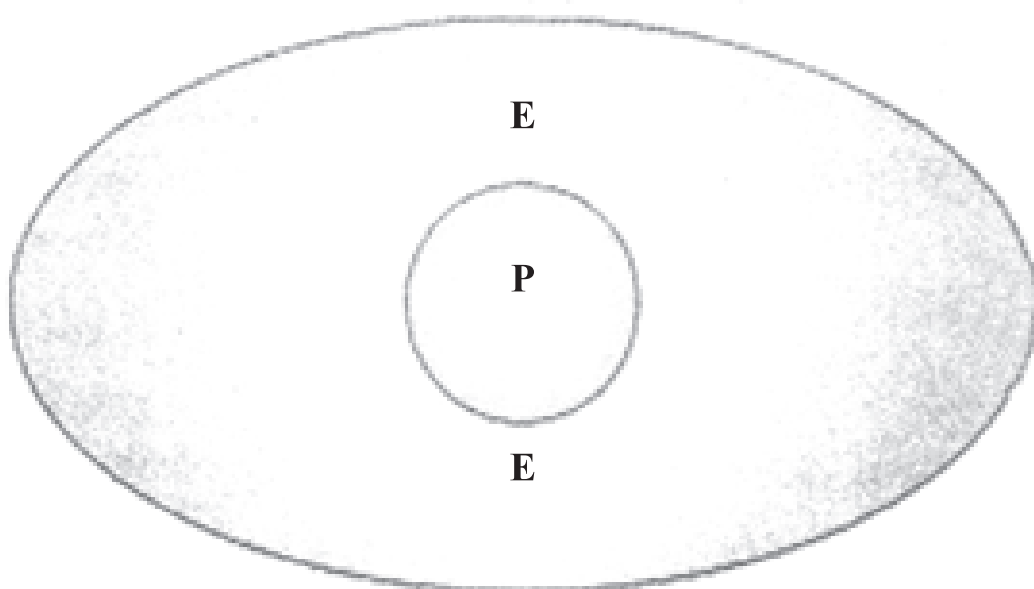


Figure 8.2 Life space according to Kurt Lewin

The physical environment that does not have a direct influence, is called foreign hull (outer area) but this foreign hull can influence the psychological reality of the person. For e.g., when students are in the classroom concentrating on their studies, they get the news of traffic jam in the city. This news does not have different effect on the psychological reality of students and teachers.

(II) Bronfenbrenner's Model of Environment

Bronfenbrenner has a different approach towards environment. He has explained the environment in terms of five systems organized in a hierarchical form which is structured like a bird's nest which can be seen as below :

Bronfenbrenner's explanation about the five systems of environment is as under :

(a) Micro System :

It is composed of the system in which the individual lives. This structure includes units like the person's family, peers, school and neighbourhood. In this system majority of the interactions are with parents, peers and friends.

(b) Meso System :

It is such a system in which various Microsystems are related. e.g., family experiences of the child have effect on his interactions with friends and teachers. The children from broken families experience difficulty in their adjustment with friends.

(c) Exo System :

This system indicates the effects of the experiences of situations that are not in close contacts of a person on the people who are in close contact with that person. e.g., person's experiences in work place influences his interaction with his wife and children. The conflict with the boss in the office finds expression in the form of anger on the wife and children at home.

(d) Macro System :

This system is associated with the culture in which we live. Culture includes beliefs, values, customs etc. which are followed and practiced by majority of the people.

(e) Chrono System :

It refers to patterns of behaviour which are related responses to the change which have occurred in life course in socio historical context. e.g., in a person who is very much optimistic and industrious in young age, with the growing age there is a decline in his activities and ambition.

Environment Effects on Human Behaviour :

Environment has both nourishing as well as destructive effects on human behaviour. Throughout human history it has been observed that people have been threatened by flood, earthquake and other natural calamities. Technological growth and development in recent days have created new threats for us from environment. These threats are man-made. We shall have to devise ways to cope up with these stressors. There are many environmental stressors. We shall discuss here about noise, crowding and natural calamities:

1. Noise Pollution

Industrial and technological advances have led to a considerable increase in noise pollution. Sounds which are unnecessary, unwanted and also having negative effects on persons are known as noise. The effects of noise are not pleasant. Noise is the environmental condition which creates disruption. The disruption created by noise is psychological in nature. The disruption created by noise has emotional aspects. If the noise is very disruptive we may get excited. So the problem of noise can be considered psychological in nature. In

this way any sound which is unpleasant to the person is considered noise. For e.g., pop music or rock music could be noisy for many people.

Sound pollution creates adverse physiological and psychological effects. It may create situations like high level of arousal, stress, disturbance in concentration, reduction in reading ability and performance. The adverse effects of noise largely depend on the intensity of noise, predictability and comprehension of the person. Those who live in the highly noisy atmosphere, they have to utilize a little excessive physical and psychological energy. Those people get tired soon, because of extra expense of energy in doing the work. Evaluation of sound as unpleasant is a major reason of noise. Sadness or unpredictability of sounds is another reason for unfavourable negative reactions to them. We can adapt more easily to a regular, mild, predictable and expected sound like chirping of birds in the morning. When the individual perceives that he has no control over the noise, the negative effects of the noise are reduced. It has been observed that people staying around airport or railway station are constantly exposed to traffic noise of air planes and trains, which cause situations like memory loss, hearing loss, high blood pressure etc.

2. Air Pollution

Air is an important environmental factor for the living beings. For living beings air is more important than food and water. When clean and fresh air is polluted due to any reason, it becomes dangerous for our health.

Mostly the air pollution is created by man-made processes. The smoke coming out from the factories and vehicles of the cities, smoke from burning coal, burning the tobacco create air pollution. As a result of these poisonous gases like carbon monoxide, nitrous oxide and sulphur dioxide enter the body of the people through breathing and leads to the disease like respiratory problems, burning of the skin, cancer and many other diseases.

Once upon a time there were cities that were famous for their clean air. But now these countries are also surrounded by pollution and because of pollution people are admitted in the hospital, many health problems are created and it may cause death for some people. Cities like Buenos Aires the capital of Argentina, Denver the capital of Colorado, Madrid the capital of Spain and Rome the capital of Italy are losing their image of cities with clean air. In India cities like Bhopal, Bengaluru and Chandigarh have become the most polluted cities. Today only two cities like Singapore and Kuala Lumpur, which are still pollution free cities.

3. Pollution of Crowding / Density

Crowding occurs when a large number of people live in a limited space. Early studies on crowding on animals show that there were high incidence of sickness and diseases among animals due to crowding. Studies on human being with regard to density reveal that density not only affects the quality of individual behaviour, but the quality of social behaviour also. e.g., when seven to eight person live in a 10' x 10' room space it has an adverse effect on their interpersonal relations. Their behaviour becomes more aggressive, less altruistic, less helping and regressive. Such negative effects can be seen due to crowding. Crowding itself is a big problem. Many researchers are of the opinion that the term crowding is used in reference to feeling of crampedness or personal subjective feelings. Some people do not perceive or understand crowding in terms of physical density (large number of people in a small place): Therefore, it is necessary to use two different terms, when a large number of people are present in one place that is density and because of the very close contact the feeling of pushing and pummeling one another is known as crowding. Density refers to actual number of people per square foot, while crowding is the subjective feeling of being too close to one another. In density there is a feeling of common belongingness, while in crowding the feeling is much less. Studies conducted in India as well as in other countries show that crowding has a negative effect on task performance,

personality and interpersonal relationship, physical and mental health of the person. When people experience crowding the common effects are obstructions in goal achievement, undesirable interference, mental and physical discomfort. Crowding mostly affects social behaviour. On the railway platform or bridge everyone is busy in looking at their own roads, at that time we don't feel like meeting known or unknown people. In crowding situation we avoid meeting or talking to others. In this type of situation every individual tries to stay away from others and if it is unavoidable to meet then a person will try to shorten the conversation.

Impact of Human Behaviour on Environment

Environmental Psychology has been defined in the context of interaction between our behaviour and the physical world. This interaction is a two way process. There is an effect of environment on our behaviour and our behaviour also affects the environment. We shall discuss here the impact of human activities on environment.

In fact every action of the human being has minute, yet cumulative effects on the environment in which we live. When a person is driving a car, using a spray, cooking food or producing garbage, environment gets affected. Whatever you do individually, have a little but immediate perceptible effect on the environment. Billions of people living on this earth, in some way or the other keep on affecting the environment. Thus the total environment gets significantly polluted. There are adverse effects of pollution on our life, because of which the world would have to face serious dangers in long term. The irreversible and harmful changes in the environment that supports and sustain our life on this earth are produced by our human actions.

The effects of human behaviour on the environment are as under :

1. Misuse of Natural Resources

There are certain limitations of the capital received naturally from the environment. Air, water, food, fuel etc. are most invaluable gifts to humankind from nature. Its judicious use and conservation is extremely necessary for the existence of humankind. Mostly our actions are contrary to what is desirable. We behave without thinking of the consequences of our actions. Our actions which go against the environment create a threat for our own existence on this earth.

2. Waste and Garbage

Through our activities and actions we mostly produce waste material ranging from sewage to garbage. There is a serious problem of management of sewage and garbage for municipal corporations, cooperative units and government. You are aware that sewage water flushed directly into the rivers, which has created a serious problem of polluting water of the rivers. The result is that the river water becomes unfit for human consumption. The problems created by the sewage/garbage produced by us daily are complex. Some waste can be naturally biodegradable or can be destroyed, but things like plastic bags cannot be destroyed.

Collecting and recycling of waste papers, glass, plastic and metals and reusing them is a positive attitude that is necessary for the conservation of environment. Intensive efforts are required to be made for the development of positive attitude of the people that they participate in the pro-environmental activities. But habits of people are responsible for the dirt on the road and public places. e.g., spitting, blowing the nose in open, vomiting, taking bath on the road, washing clothes and utensils, pour out the household garbage on the road and after cleaning the gadgets throwing the dirt coming out of that on the road, throwing paper dishes and peels of the fruits here and there, throwing lot of water on the same place and creating mud, living the animals unattended also spread dirt by passing urine and faeces on the road. While spreading dirt people behave as if it's not their responsibility to maintain cleanliness and health. Some people think that they are very

smart because they keep their courtyard clean by throwing their garbage in the courtyard of their neighbours. But by this they are not able to save themselves by spreading dirt to their neighbours.

If this problem is not tackled in time, this world would not remain worth living for our descendants. This danger has been caused by human population growth, overconsumption of things and lack of conservation of natural resources. Psychologists can play a vital role in saving this world from environmental disasters.

Attempts to save Environment

Problems of environment are quite complex. These problems cannot be solved only on technical basis. The help from the various disciplines like Engineering, Physics, Chemistry is not sufficient for their redressal because majority of the problems are manmade. Therefore social scientists can play a crucial role in modifying and reforming human behaviour.

Since 1970 Social Scientists, Environmental Psychologists and Sociologists are trying to find ways and means to save the environment from further degradation and to encourage Pro-environmental behaviour. To achieve this goal basic changes are required to be made in our lifestyle and social customs. Some changes in this direction have been done. Making reuse after recycling waste items like paper, glass, metal etc., reducing the use of detergents, avoiding littering have very significant impact on the environment. To achieve the objectives of Protection and Conservation of environment we have to make the citizens aware of the problems of the environment we are facing. Moreover, to make them Pro-environmental, it is necessary to bring changes in their attitude and behaviour also.

For environmentalist the need is not only to stop the abuse of the environment, but also to reverse the process. The over use of CFC (Chlorofluorocarbons), for refrigeration has thinned down the ozone layer in the atmosphere, that protects us from the harmful effects of ultraviolet rays of the sun. Because of thinning of the earth's protective ozone layer there is an increase in the incidences of skin cancer. Through international co-operation, 50 nations have stopped the use of CFC. Yet the problem is serious. There is an estimate that ozone layer would take fifty to hundred years to regain its normal thickness.

There is no easy solution for the problem of damage to the environment which can be put into practice. It may be possible to control the situation if we get the co-operation of the people. The efforts of the government alone are not sufficient to tackle this serious problem. It is very much necessary to make the public aware about the seriousness of the problem. Studies in India and foreign countries have indicated that people are not aware of the intensity and extent of the problem. Therefore starting the public awareness programmes will be the first step in the right direction. In India 'Swachchhata Abhiyan' is a step taken in that direction to create awareness amongst the public.

There are two ways to save environment :

1. Behavioural solutions
2. Global solutions

1. Behavioural Solutions

We shall discuss the solutions like voluntary simplicity, encourage concrete actions, behavioural norms, and organized group activities:

(I) Voluntary Simplicity

We have an age old saying that ‘A contented man is always happy’ which means that to be happy we should curtail our needs. This should be voluntarily practiced by everyone to make minimum use of technology and natural resources, is a very simple affair. In global contexts all the countries have to make use of earth’s natural resources effectively, wisely and equitably. To live a stable and balanced life, we should avoid use of more than what we require. The environmental problems are the concerns of the whole world. Everybody must think and move in that direction.

(II) Encouraging Concrete Actions

People should be encouraged to curtail the use of devices which consume natural resources and make use of recycled products. To reduce air pollution car pools or public transport system should be used. However, it is not enough to inform the people about some products and services and their usefulness, but they need to be motivated to make appropriate behavioural activities. Participation in the community programmes for curtailing the use of natural wealth, and efficient use of it. Instead of personal approach the collective approach becomes more effective in recycling of things.

(III) Providing Behavioural Norms

It is the responsibility of the government organizations to provide guidance to the people and to motivate them regarding enforcement of environmental regulations and standards. People should be clearly explained the regulations and the norms in that connection. Vehicle owners in the metro cities like Delhi, Surat and Ahmedabad are compulsorily required to get their vehicles checked for the pollution level and get pollution under control (PUC) certificate and stick it on the vehicle. The fuel should be of required quality and without Lead and the emission norms for the control of smoke for vehicle manufactures should be made stricter. In Delhi and Ahmedabad vehicles running on ‘ compressed natural gas’ (CNG) are into use. Though burning of waste and dry leaves in open is prohibited, yet it is not strictly observed. Enforcing agencies should be given authority and make it efficient for the strict enforcement of the norms. The production and use of chlorofluorocarbon should be gradually stopped. We should adopt the use of electric cars and other vehicles powered by zero pollution fuel cells.

(IV) Organized Group Activities

The careful use of group activities for monitoring and controlling environment is another important approach. It is very much necessary that the organized activism curb the environmental damage done by power houses, transport corporations, co-operative institutions, powerful industrial, organizations etc. and keep them under control. Powerful and influential organizations like government institutions, corporations and industries ignore individual protest and complaints. In this situation, group activism works as an effective tool for controlling these threats . Sometimes public interest litigation proves to be effective. The Supreme Court of India has issued orders for strict observance of fuel norms, phasing out of old and inefficient vehicles, conversion of commercial vehicles to CNG etc. Supreme Court also has initiated actions to make the rivers pollution free. Similarly mass media are very useful in creating awareness about some issues and for promoting necessary activities towards creation of healthy environment.

2. Global Solutions :

Now we will discuss the global solutions like recycling, energy conservation and greenhouse effect to save environment :

(I) Recycling: Today there is great danger against the human kind because of population growth, indiscriminate use of things and absence of protection to natural resources. We have made irreversible and harmful changes in the environment which sustains our life. If we do not get a speedy solution for this problem,

this world will not remain worth living for our situation, and will have to introduce changes in our lifestyle and cultural customs.

Recycling is such a safe and simple course in which instead of 'use and throw away' policy, that increases the pollution problem, the things are brought into reuse after the process of recycling. The Aluminum cans of cold drinks can be melted and used for manufacturing aluminum and other products. Similarly papers, glass, clothes, metals can also be brought into reuse. Moreover the shortage of water is increasing day by day. The conservation of water becomes very important issue these days. The large quantity of water flowing into the gutter can be reused. The sewage water can be flushed into the river after making it safe by treatment.

(II) Energy Conservation

Misuse and abuse of natural resources is the cause for the rise of environmental problems of this planet. The misuse of petroleum products is the most prominent amongst them. The illustration of America is relevant here. The USA having only five percent of the world's population consumes twenty five percent of the commercial energies on this earth. The outcome of the misuse of resources on this planet of the universe is that the traditional supplies of most of the resources are getting exhausted. Most of the industries in the world run on oil. The shortage of petroleum oil will have a dramatic effect on many aspects of our life. Nations shall have to use the natural resources very carefully and avoid its misuse. Moreover, it needs to make a planning for protection of resources for their use in future and for safe environment.

(III) Green House Effect

Human beings in present days have been indulging in anti-environmental behaviour on a large scale. Abuse of environment includes producing waste, indiscriminate use of petrol or diesel, deforestation, burning coal, fire in the forests, use of chlorofluorocarbon for refrigeration, aerosol cans etc. This is a big threat to the world. The various activities of the humans have long term negative effects on the environment. Cyclone, sudden change in the atmosphere, increase in the temperature and melting of glaciers of the north and south poles and as a result of which the increase in levels of water of the sea are a few of them. These effects have been observed in different ways in different countries of the world. Sea water level is rising at the rate of one inch every five years. It has been noted that three islands of Republic of Maldives have now sunk under water.

This change in the climate is known as 'Green House Effect'. Green House has a glass roof which gets warmer because of the sunlight. But this warm air is prevented from escaping out. Similarly three gases, carbon dioxide, methane and nitrous oxide that are released into atmosphere, stops escape of the sun's heat and turns the earth into a vast 'Green House'. The level of these three gases is increasing from the middle of the eighteenth century and is still continuing to increase. If this process still continues it is estimated that by the year 2100 the temperature on the earth's surface would increase by 3.5 degree Fahrenheit. Even an average increase of 1 to 2 degrees in the regional climate would disrupt agriculture world-wide.

Due to this type of trend the big glaciers will melt and inturn will bring the sea water level high and some coastal areas will have severe floods.

In order to reduce the amount of carbon dioxide in the air we should grow more trees and should put ban on the use of chlorofluorocarbon in the refrigerators. As a result there might be some improvement in the ozone layer. But the damage in the ozone layer is huge and we need at least 50 to 100 years to get back the same thickness of the ozone layer.

Recently a report published by United Nations stated that the pollution has been spread upto 3 km. about the level of the earth in the North Asian countries including India. Due to that we see the change in pattern of climate and its effects on the crops. As a result many people will die due to the respiratory problems.

For the whole world this is a big problem so people will have to continuously try to reduce the smoke coming out of the vehicles and use of energy should be restricted.

From this we can derive that there are three factors of environment: physical, social and cultural. All these factors affect human behaviour. Our sensory system experiences the environment around us and its effects in parallel way. Due to the misuse of the environment, crisis have been created by the serious problems like deforestation, floods, greenhouse effect and misuse of energy. So in order to live healthy and satisfactory life, we should learn the judicious use of the natural resources like water and will have to learn to preserve the environment.

Exercises

Section – A

Choose the correct answer from the options given below :

- In what type of climate people feel more excited and aggressive?
(a) Cool climate (b) Very cold climate
(c) Hot and humid climate (d) Normal climate
- Which psychologist differentiates between environment and physical environment?
(a) Bronfenbrenner (b) Watson
(c) Kurt Lewin (d) Morgan
- Which psychologist has explained the model of environment by five systems of environment?
(a) Atkinson (b) Bronfenbrenner
(c) Kurt Lewin (d) Skinner
- Due to air pollution the ratio of which disease increases?
(a) Cancer (b) Respiratory diseases
(c) High blood pressure (d) Skin diseases
- Feeling of crowd is more seen in?
(a) Crowding (b) Density
(c) Mob (d) Group
- Which psychologist played an important role in saving ourselves from the environmental problems?
(a) Clinical psychologist (b) Social psychologist
(c) Counselling psychologist (d) Environmental Psychologist
- Most of the problems of environment are of which type?
(a) Natural (b) Accidental
(c) Man-made (d) Geographical

8. Which type of diseases has increased due to the thinness of the ozone layer?
(a) Skin cancer (b) Blood cancer
(c) Asthma (d) High blood pressure
9. What should be done to reduce the release of carbon dioxide in the air?
(a) Maintain cleanliness (b) Not spreading litter
(c) Grow more trees (d) Judicious use of natural resources
10. Which gas is being used for the refrigerator?
(a) Oxygen (b) Chlorofluorocarbon
(c) Carbon dioxide (d) Nitrogen

Section – B

Answer the following questions in one line :

1. Which type of behaviour is observed more in the people living in cold climate compared to hot humid climate?
2. What type of behaviour is seen in the noisy situation?
3. Which aspects are included in the socio-cultural environment?
4. Which concept is being given by Kurt Lewin in order to establish relationship between human and environment?
5. What is noise?
6. How is air pollution spread?
7. What steps should be taken to reduce air pollution?
8. What is crowding?
9. Because of what the thinness of the ozone layer of the environment occur?
10. What is 'Green House Effect'?

Section – C

Answer the following questions briefly (about 30 words) :

1. What is included in the physical environment?
2. Explain the effects of physical environment?
3. Explain man-environment relationship in short?
4. Explain environment and behavior.
5. Explain the outcome of the behavior.
6. Explain the concept of 'Life Space' given by Kurt Lewin.

7. Describe in short the Bronfenbrenner's model of environment in short.
8. State the reasons of noise pollution.
9. Explain the reasons for air pollution.
10. Explain how dirt spreads.

Section – D

Answer the following questions in about 50 words :

1. Describe the main five factors of environment and behaviour.
2. Explain the Kurt Lewin's model of environment.
3. Explain the Bronfenbranner's five systems of environment.
4. Explain the effects of noise and air pollution on human behaviour.
5. Explain in details the concept of crowding and density.
6. Explain misuse of natural resources as an impact of human behaviour on environment.
7. Explain voluntary simplicity as an attempt to save environment.
8. Explain behavioural solutions as an attempt to save environment.
9. Explain the concept of recycling and energy conservation.
10. Specify the concept of 'Green House Effect'.

Section – E

Answer the following question in about 80 words :

1. Explain in detail human environment relations.
2. Explain the effect of environment on human behaviour.
3. Describe the effect of human behaviour on environment.
4. Explain the behavioural solutions as an attempt to save environment.
5. Discuss the 'Green House Effect' in detail.



In everyday life we are visiting places like bank, hospital, court, police station, insurance company, collector office, hotel etc. What can we see at such places? Three things can be seen at such places : (1) building (2) staff (3) machines. All these places are known as organization. These organization's have one building, staff members who work there and the instruments required depending on the type of the work. e.g., your school is an organization because it has a school building in which principal, teachers, clerks and servants are serving as staff members and they have blackboard, chalk, duster, computer, books, benches, fans etc for teaching.

Now the question comes to our mind is why do we build organizations? Answer to this question is that the aims and goals that a person in isolation (alone) cannot accomplish, for fulfilling those goals we need organizations. e.g., Post-office is an organization, the main function of the Post office is to deliver posts, parcels and to give financial services. Without any structure of postal departments all over the country is it possible to give such services to one or two persons? For this organization, like postal department is required. In this way in order to attain the goals of organization, group and individual, organizations have come into existence, which a single person alone cannot accomplish.

Meaning and Definition of Organization

Only building or infrastructure, staff and instruments can neither build organization nor run it. All the organizations provide some services. e.g., services like financial transactions are done by the banks, teaching by the school and public transportation by railways and road transport corporation. The main aim of these organizations is to provide best services. In order to attain such goals in the organization, coordination of individual and group efforts are required. Different individuals are assigned different work and in order to finish this work, they are given responsibilities, power and rights in proper amount. Every individual or group has a special role to play and is assigned special work also. In this way organization is a collective unit made up of various parts or divisions and roles. Every part or role does its special work but also work interdependently with other parts and work in a planned manner. The definition of an organization is as under:

An organization is a rational co-ordination of the individual or group efforts and activities for attainment of some commonly shared or agreed upon objectives and goals, through division of labour and functions, and through a hierarchy of power, authority and responsibility.

Organization is consciously compiled social unit, which is made up of two or more people, which continuously function to attain common goal or goals.

Robbins (1995)

Characteristics of Organizations

Following characteristics have been derived from the above given definition and meanings :

1. Common Goals: Each organization has set specific goals. People working in such organization, work with co-operation and co-ordination for the attainment of those goals. The work and the role of the each person might be different but all are trying to attain the common goal or goals of the organization e.g., one goal or aim of the post department is to deliver posts at the correct time and place.

2. Co-ordination of Efforts: For the attainment of the goals of the organization, co-ordination of efforts among the members of the organization is required. e.g., when we are sending one cover by speed post, in that process one staff member of the post office does the work of weighing the cover, stick the sticker and does the online registration. After that, other staff members distribute them area wise and put it in the bags

and at last the postman delivers the cover at the right address by taking their signature in return. When this process is over the information regarding post distribution is kept online.

3. Division of Labour: This characteristic is associated with the co-ordination of efforts only. Among the various functions of the organization, distribution of the work is possible through division of labour only. Such a division is based on the type of task a person is supposed to perform. Employees are assigned tasks on the basis of their abilities and skills and they are trained for their specific duties.

4. Responsibility and Authority: On the basis of co-ordination of efforts and division of labour, each individual is assigned certain duties and responsibilities. Attainment of goals depends upon the extent to which each individual fulfils his assigned responsibilities. In order to attain the goals of the organizations monitoring and controlling at the various level of organization is necessary, which means at every level, responsibility and rights are decided. Commonly in organization, there is a definite hierarchy of power and authority. Thus some members have more and others have less powers.

Functions of Organization

We have already seen that organization has come into existence in order to attain some goals. For attainment of the goal, co-ordination of the work in between the employees and clear distribution of work is very important e.g. we can also consider family as a social organization. In every family there are unwritten rules in which every member is supposed to do what type of work, how much liberty will be given and in absence of that member who will take that responsibility is clear. In the same way the work of the organization is also going on according to the specific structure and predefined rules. There are six main functions of the organization:

1. Work Specialization: Work specialization depends on the nature of the work. It can be seen in two ways: (1) Some task is being done exclusively by a single worker. (2) Some work is not done by a single person only, but it is divided into parts; each part of the work is done by a different worker. Due to work specialization, each worker becomes expert in only one part of the activity.

2. Departmentalization: On the basis of nature of the duties, tasks are grouped together which is known as departmentalization. e.g., a hospital can have departments of patient care, administration, accounting, rehabilitation, research etc. Such grouping gives the benefits of better co-ordination and efficiency in work and productivity.

3. Chain of Command : It is directly related to the hierarchy from top to bottom position, such line of authority clarifies who reports to whom. It tells the worker whom to contact if there is a danger or problem. Chain of commands includes two things : authority and unity of commands. (1) In authority command is being given and expectations regarding the following of the command is their right. (2) Unity of command suggests that a subordinate should have one and only one higher authority to whom he directly reports. If the chain or unity of command is broken, the subordinate has to face conflicting demands and commands from several superiors.

4. Span of Control The number of subordinates a manager can effectively and efficiently supervise is called span of control. If the span is too wide, the manager will be hard pressed for time and so will be unable to provide support and leadership to many subordinates. But if the span is too small the company will need many managers which will prove costly.

5. Centralization: Centralization-Decentralization level of an organization depends on the involvement of the employees in the functions of the organization. Centralization means the top managers make all the decisions and their subordinates merely carry out manager's directives. In decentralized organization all

employees connected with the task are given the power to decide. Each worker can take decision at his level. Thus power to decide is distributed. In decentralized organizations employees are given rights and steps are taken for the empowerment of them. But in order to get good results, decentralized arrangement system should be continuously evaluated. In this way centralization and decentralization directly affect the speed of decision and their implementation.

6. Formalization: In this type of system an employee gets least freedom in playing his role. Assigned task is to be done by the same method and uniformly every time. Then we can say formalization of the organization is being done. Such organizations follow definite rules and procedures. There are merits and demerits of formalization. The employee is not free to behave in alternative ways in merit, and the demerit is an employee is not able to work freely and independently in his own way.

Types of Organizational Structure

Once upon a time in a king's rule, some people were considered whole and sole. King himself was giving justice and had a right to give punishment also. The treasury of the state was flourished and finished by the orders of the king and this was carried out for generation to generation. With the rise of the democratic ruling system, a specific way of administration has been established for a state like huge organization or judicial system or courts like sub organizations. Now we can see many types of organizations. Structures of organization are of various types, which are given below :

1. Simple Structure: In this type of structure authority is centralized in one individual and formalization is minimal, such a structure is also called 'flat structure'.

Usually one individual is authority and some people are working under him. Where one family or a person is handling some industrial or business organization, this type of structure can be seen. Here both administrator and owner is the same person, employee's hierarchy of the position is almost nil. For example, a person who is having sales agency appoints some sales agents for selling the goods of his agency, and then, this type of organization is having simple structure. Here the owner of the sales agency is the owner and administrator of the organization. Appointed sales agents directly give report regarding their sale to the owner.

2. Bureaucratic Structure: Function of the organization runs according to laws, rules and regulations in a formal structure and work specification is known as a Bureaucratic structure. Here the rules regarding, who is supposed to do what type of work and what not to be done are fixed. Our majority government and semi government offices function according to bureaucratic structure. Here everyone is having specific responsibilities and power and on that basis chain of command is established. The liberty to take the decision by going out of the structure is very less. The biggest weakness of this structure is that it strictly adheres to rules, so when special case arises, which do not fit the rules, decisions are postponed. It is not possible to immediately make changes in the rules.

3. Matrix Structure: In the organizations where multiple complex and interdependent activities are conducted matrix structure is more effective. Usually college, university, hospital, advertising agencies adopt matrix structure. By effective give and take ideas, they convert the special resources of the company into special products. e.g., an institution with matrix structure has various functional departments like academic, administrative, library, teaching etc. It teaches various courses like B.A., B.Sc., B.Com., M.A., M.Sc., Ph.D. etc. which are its products, so members of this structure have a dual responsibility, one to their functional department and other to their product group. A lecturer who teaches Psychology subject is responsible to the students of B.A., M.A. (Psychology) and also responsible to the college Principal and head of the department.

This structure is successful in effective assignment of tasks to the specialists, but occasionally it may arouse conflict and power struggle between them.

Basic Functions of Managers

In any organization the able leadership is taken by the key persons, who take policy decisions, known as managers. e.g., trustees and principals of the school are the managers. Without managers no organization can function. A few basic functions of managers are as follows :

1. Planning: Organizations are created for attainment of certain goals. Responsibility of achieving those goals is of managers. Planning involves (i) defining goals, (ii) proposing the strategies and methods of attaining them, (iii) making detailed plan linking the various activities of the employee.

2. Organizing: This involves specifying and linking the different roles and responsibilities of the worker. e.g., clarification regarding who will do what kind of jobs? How to classify the jobs? Who will be accountable to whom? Who will take decisions? etc. All these questions and responsibilities connected with it is also specified.

3. Staffing (Appointing): Selecting and recruiting employee is also a responsibility of managers. For choosing right person for the right job requires job analysis and reliable method of selection. After appointing, for the further development of employees skill, training is also necessary.

4. Leadership: For attainment of organization's goals, co-ordination of various activities of members is also needed. For this the leaders of the organization provide able leadership, in which motivating the people after appointing them, directing them, developing the most effective methods of communication and evolving effective methods of handling conflict.

5. Controlling: After the organization's objectives and goals are determined, developmental plans are prepared, appropriate structure are set up, employees are selected and put to work, the task of coordinating their work and of making them perform as per the targets, still remains. If the employees fall short of their targets, it becomes the task of management to implement mechanisms to bring them back on the right track. This task is called controlling. Controlling involves comparing, evaluating and improving their performance. Control is achieved by rewarding good and punishing bad performance.

Manager's Role

All the managers of an organization have to play certain roles inside and outside the organization. The roles are classified into three categories :

1. Interpersonal Role: Managers have to remain in contact with people within and outside the organization. They have to provide leadership to their subordinates and also to perform the role of selecting, training and motivating them and also have to maintain discipline.

2. Informational Role: Managers need to get data and process information related to various aspects of organization's activity and get it analyzed and summarized. While interacting with people outside the organization, they have to play the role of a spokesperson.

3. Decisional Role: Managers also play the role of decision making occasionally. Organization has to choose alternative strategies for improving the work style of the managers and employees. They also have to find out novel ideas and initiate new tasks and methods. They decide about the required resources and the ways of obtaining them. Decision about allotment of the duties, and resources required for them are taken.

Selection of Personnel - Methods of Selection

In modern era of science and technology the style of working and its effectiveness keeps on changing continuously. Earlier education was believed as a key to success, but now along with the degree, the skills, attitude of the employee, his/her personality and its psycho-physical as well as psycho-social factors and his/her working patterns etc., affects his/her success and progress.

Modern psychology expects right man at the right job. For the success of various jobs strength, training and experience is necessary. In any organization or industrial house if all the work is done successfully, then that unit will be able to achieve its goals and also able to progress. Considering the different requirements for various roles, many methods are used for appropriate selection.

Various methods are used for the proper selection of the employee for different jobs, and according to time, situation and condition changes can be seen in it. Four widely used methods for selecting the personnel are as follows :

1. Application: Usually applications are invited by advertisements in the newspapers or through other sources. In the age of technology online applications are also expected. On the basis of the information given in the application form, they are called for the interview. In some application forms format of the application is fixed and for some posts the application can be sent in one's own way. Usually in application the information of the applicants like name, address, age, sex, contact no., email address, educational qualifications, work experience, special achievements and references of the people you know, are mentioned.

If application form is prepared on the basis of the norms standardized by research and analysis and interpretation is also done accordingly, then this application forms are useful. In 1957 Skoll prepared an application form for sales personal on the basis of his research. Dunnet and Metzolt also conducted a research for the employees who are kept for the particular seasonal work. Now the revised edition of value added application form seeking information regarding life description has come into existence, in which the relationship between the employee's history and his work efficiency is established.

2. Interview: Interview is the face to face conversation between two or more people. It is a very famous method for the selection of personnel. Interview is useful in predicting the decision about likes and dislikes and work success of an individual, if it is conducted by an expert and experienced interviewer who neutrally does the procedure. The success of the interview depends on the capability of the interviewee. In order to reduce that structured interview is being used. In this type of interview information regarding the individual with reference to their occupation is collected scientifically. In interview both the parties are trying to perceive each other. Many human related factors affect the interview process. Such factors are lack of rapport, prejudice, generalization etc. In order to remove the effect of subjective factors, or in order to control them, more than one interviewer will select the person if they all agree to it.

3. Written Tests: Through application and personal interview information regarding knowledge, experience, factors of personality of an individual is collected. But these methods also have limitations. For measuring the innate qualities of the applicants like, intelligence, logic, consistency, attitudes, aptitude, interest, creativity, devotion to work, morality, principles etc., written test is given. Through written tests and psychological tests objective and dimensional measurement is possible. To know about the personality factors and other merits of an individual, these type of tests are widely used. These types of tests are readily available and sometimes according to different professions new tests are developed. Usually before using these tests, its standardization, norms, reliability and validity should be checked.

4. Performance Stimulation Tests: Such tests are based on the information obtained by job analysis. Job analysis is a detailed description of the tasks involved in the job. In job analysis proficiency, abilities, attitudes and aptitude to do that work, level of capability etc. are decided. Job analysis also includes job description. Performance stimulation test represents the map of the actual work done at the work place. In this method there are two famous approaches:

(I) Work sampling (II) Assessment centers

(I) Work sampling: In work sampling a small model or replica is created and the applicant is asked to perform his task by observing those, predictions regarding capability of the person to do the work in the original work situation can be found out. e.g., if we are supposed to appoint a clerk in the office he is asked to work in the office where table, chair, papers, files, stamp, pen-pencil, computer etc. can be used and then asked to type a paper, stamp it and take the signature, post it and file the office copy. At given situation how many mistakes are done while typing, time taken for typing, his language, how he used the rubber stamp, what type of cover he choose, how punching is done, after filing the papers how he arranges the files on the table and after completing all these jobs how he arranges the things on the table, all these activities are observed and on the basis of that observation the work capability, competency and accuracy can be seen.

(II) Assessment Centers: Assessment centers are used for the selection of the managers. In assessment centers trained psychologists conduct a workshop in which realistic situations are presented in miniature form. A real organizational situation is created by exercises, discussions, management games, decision games and applicant is evaluated through these games. Such workshops have proved to be effective in assessing management potential and ability and predicting accurate managerial behaviour, which can be helpful in predicting their success.

Theories of Work Motivation:

In the above point selection of personnel, many methods for selecting a personnel have been discussed. If right person for the right job is selected then the employee will be able to give enough justice to the organization and organization also gets satisfied with the employee. For the satisfactory performance of the employee, we need to understand some motivational factors. If the employee working in the organization doesn't have job satisfaction or the work environment is unfavourable then employee will come and go frequently means if the employee does not continue the job for the long time, it is known as 'turn over'. Due to the lack of job satisfaction, turn over increases, work ability decreases, frustration and feeling of uselessness is experienced. The motivation of an employee depends on many factors, which are divided into two parts: (1) Physical motivation, (2) Social motivation. According to Guilford, 'motivation is a special internal situation

which initiates and maintain the activity'. Many theories have been given to explain human motivation. Some important theories are as under :

(1) Need theory, (2) Goal setting theory, (3) Reinforcement theory, (4) Equity theory, (5) Expectancy theory

1. Need Theory: At different age needs of the human being change. More the needs of an employee are satisfied more he will be encouraged to work. If we get the idea of the employee's needs and if we are able to satisfy them at the correct time and in the correct way, we can increase the satisfaction of an employee. In 1943 Abraham Maslow has given the theory of 'Hierarchy of Needs', in which rank is being given from basic physical needs to self-actualization according their importance. Starting from the basic needs efforts are made to satisfy the higher order needs, then it is possible to increase the job satisfaction of the employee.

2. Goal setting Theory: Man is an intelligent social animal. None of the behaviour of humans is aimless, which means after every behaviour there is a specific goal. When we start an activity to attain certain goals and when we actually accomplish those goals, we feel happy and satisfied. After that individual decide to attain higher goals and try to acquire them. Various goals only provide motivation to the person. First of all one should decide the goals of our life and have to decide the direction and activities to accomplish those goals. In this way a person is gradually given higher goals to attain and accomplishment of the lower level goals will motivate to achieve higher and better goals.

3. Reinforcement Theory: Strengthening the expected behaviour and weakening unwanted behaviour is known as 'Reinforcement'. Usually the positive reinforcement after any activity motivate to work. In the theories given by Pavlov and Skinner we have seen that, in order to increase and improve workability of an employee, whenever he does any expected, profitable, appropriate activity at that time if we give reinforcement the attitude of doing such activities become firm. e.g., if an employee doesn't take leave and gets the cash as a reward for that leave, then this cash reinforcement will motivate the employee not to take leave. Reinforcement can be in the form of financial benefit, honour, praise or promotion in the job.

4. Equality Theory: A person can never tolerate injustice and accept the theory of equality. Every individual expect that those who work in equal amount should be given equal rights, any type of discrimination among employees who does the same amount of work, reduces the work motivation. e.g., in a company 3 employees are working for eight years and all of them are given 5 percent salary hike every year, then all the employees are happy. But in the ninth year if one employee is given 15% raise and other two are given 5% raise then one person will have positive effect and other two will have negative effect of that decision.

5. Expectancy Theory: In Bhagwad Gita Shri Krishna rightly said "Keep on doing the work (Karma), do not expect the result", but for human being it is difficult to implement it. Every individual does any activity or behaviour and as a result of that some outcomes or results are expected. And when as a result of that activity or behaviour whatever expectation they have kept are satisfied then a person will get job satisfaction. e.g., when one employee is asked to come to the office on a holiday, he feels that his holiday is being spoiled, but cannot say no to the boss. But after the work when he is going back home in the evening he gets the regular salary plus one day allowance as per his pay extra, then his expectations are completed. So now if he is called again on a holiday he will happily go for the job.

Many administrators of different institutions make use of the theory of motivation in order to understand the motivation of the employee and give satisfaction to them. This may lead to increase job capability, job satisfaction and positive attitude towards the organization. So the employee will work for the organization for a longer period of time, and because of which employee and organization both will be benefitted.

Training and Performance Appraisal : As seen above we can say that, by using the appropriate objective scientific methods for the selection of personnel, we can appoint right man at the right job. If needs of an employee are satisfied, then it will have a positive effect on the work efficiency of an employee. All employees are not successful always, at that time they should be given special education through training. Sometimes in order to improve the style of working, training is required.

Training is such a process through which the abilities corresponding their job develop. As a result of effective training programme increase in the production, reduction of employee's turnover and increase in the job satisfaction takes place.

- *Milton Blum*

Training not only leads to the financial benefits but due to that proper methods of working develops, reduces the wastage of raw material, ability to make proper use of the instruments increase, and in turn reduces the accidents. Tiffin and Mc. Cormick describes the three aims of training : (1) Develop strength, (2) Giving information, (3) Bringing change in the interest and attitude of an employee.

According to Ghiselli and Brown the planning of training the employee should be done by taking into consideration both, the need of an employee and the need of an organization. Usually some methods used for training are lecture, discussion, meeting, conference, role play, movies, direction, games, interview etc.

In today's modern competitive era the outcome of the work done is important, same way the measurement of effect of training is also important. By the measurement of work ability we can find out the effect of training on it. Any industrial group keep on evaluating the employee's work ability and job activities and it should be done at regular intervals. On the bases of evaluation and progress report he/she should get appreciation for his good positive qualities. Employee should be appreciated through awards and certificates. Evaluation should be objective, neutral and free from biases, prejudice and mistakes.

Marketing and Advertising: The main aim of any industry is to earn profit through selling. Selling is an art and the psychologist should pay attention to it. According to an ancient view through various remedies of selling, we can divert the buyers in the expected direction, which means the stress was put on the inactiveness of the buyer. According to modern view point the vendors or sellers should recognize the necessity, demand and selection of the customer, and should try to satisfy them. Paterson and Right (1961) say that selling proficiency is such a process in which the seller decides the requirement and demand of the customer and excite them. According to Seagull and Lane the sellers of the produced goods are divided into various classes like wholeseller, retailer and the distributors who approach the buyers. For becoming good distributor, following characteristics are required:

(1) Personality, (2) Continuous hardwork, (3) Self-confidence and self-control, (4) Honesty, (5) Command on language, (6) Humorous nature, (7) Practical and (8) Softspoken.

In the view of common man advertisement means propaganda. According to industrial psychology "Advertisement means giving information to the public regarding the use of the produced goods or the services given in such a way that its usage will increase in comparison to other goods". Requirement and interest in the product is produced by an advertisement and then change is brought. Four factors are important for the effectiveness of an advertisement: (1) What to say? (2) How to say? (3) When and by whom should be said? (4) What type and which advertisements are effective?

In order to make an advertisement effective, the importance of medium of advertisement should be taken care of. The instrument through which advertisements are spread out is known as a medium of advertisement. Usually newspaper, magazines, television, movies, mobile phones, computer, Email, SMS, what's app, facebook etc. are modern medium of advertisement. For the effectiveness of the advertisement, along with the medium, the selection of the correct time is also important.

We have discussed in detail, that many factors are responsible for the success of industrial organizations. If all above factors are taken care of, then it proves the application aspect of psychology.

Exercises

Section – A

Answer the question by selecting a correct option from below.

- 1) From the below options which is not a characteristic of an organization ?
(a) Common goal (b) Co-ordination of efforts
(c) Lack of services (d) Responsibility and authority
- 2) Grouping of the work in its appropriate unit depending on the nature of the work is known as
(a) Organization (b) labour (c) Departmentalization (d) Work specialization
- 3) In the organization where all the decisions are taken by the higher authority and the persons working under them are supposed to follow them is known as :
(a) Centralization (b) Decentralization (c) Formalization (d) Division of labour
- 4) The type of the structure in which a single person is holding the position of both owner and manager is known as
(a) Bureaucratic structure (b) Simple structure (c) Matrix structure (d) Propaganda
- 5) From the options given below which is the fundamental work of a manager ?
(a) Planning (b) Co-ordination (c) Leadership (d) Experiment
- 6) Face to face conversation between two or more person is known as :
(a) Observation (b) Survey (c) Interview (d) Experiment
- 7) Which of the following methods is not included in the methods used for selection of an employee ?
(a) Application (b) Interview (c) Influence (d) Written test
- 8) Assessment centers are used for the selection of
(a) Employee (b) Manager (c) Salesman (d) Customer
- 9) What provides force to the likely behaviour?
(a) Reinforcement (b) Motivation (c) Object (d) Customer
- 10) Through which instruments the advertisement spread are known as :
(a) Medium (b) Market (c) Object (d) Customer

Section – B

Answer the following questions in one line :

- 1) Write the characteristics of an organization.
- 2) State the two ways of work specialization.

- 3) Show the advantage of specialization.
- 4) What is bureaucratic structure?
- 5) What do we mean by 'departmentalizing' as a function of manager?
- 6) State methods of selection of personnel.
- 7) What do we mean by work analysis?
- 8) What is turnover?
- 9) Who has given the theory of 'need hierarchy'?
- 10) State the three goals of training.

Section – C

Answer the following question in brief (In 30 words) :

- 1) Give the definition of an organization.
- 2) What do we mean by division of labour?
- 3) What is centralization?
- 4) When does the matrix structure become effective?
- 5) Explain information role.
- 6) Which information of an applicant is included in the application form?
- 7) What is work sampling test?
- 8) State the theories of work motivation.
- 9) Define training.
- 10) Which factors become judgmental for the effectiveness of an advertisement?

Section – D

Answer the question point wise (50 words) :

- 1) Explain responsibility and authority.
- 2) Explain matrix structure.
- 3) State the basic functions of a manager and explain any two.
- 4) Explain decisional roles.
- 5) Describe interpersonal role.
- 6) Explain written test.
- 7) Explain the equality theory.
- 8) Explain need theory.
- 9) What is work direction?
- 10) Explain expectancy theory.

Section – E

Answer the question in detail (80 words) :

- 1) Explain the basic functions of a manager.
- 2) Explain manager's role.
- 3) Explain functions of an organization.
- 4) Explain training and performance appraisal.
- 5) Explain marketing and advertisement.



The main aim of psychology is to carry out scientific study of human behaviour. In this type of scientific study till today, psychology has progressed by keeping the goals like explanation, clarification, prediction and control of behaviour and today in 21st century has reached up to the study of positive aspects of human behaviour like improvement of quality of life. In the journey of 125 years psychologists have conducted more studies related to negative aspect of human nature as compared to positive aspects. In the same way two basic thoughts psychoanalysis and behaviourism can't describe the hopeful picture of human nature and behaviour. The Pioneer of psychoanalysis Dr. Sigmund Freud considers childhood experiences important and considers two basic instincts, aggressiveness and sexuality as a main motivational force of human behaviour. While according to Watson - a behaviourist, human being is a machine like animal, attracted by the environmental factors around him. So in psychoanalysis and behaviourism, it is nowhere implied that human itself is its maker or he himself can independently build up his excellent personality. Due to the absence of a bright picture of humans, in Freud and Watson's theories, the 'humanist thinking' with the concept of explaining goodness of human took birth. Maslow and Rogers, the humanist psychologists put stress on 'goodness and uniqueness' of the humans, and thus we got the bright and hopeful picture of human being. More stress is now being given to the 'goodness' of human being. After the humanist, the existential psychologists also put stress on the 'meaningfulness'. The existential psychologist Viktor Frankle believed that a person is having ability to break his mental restraints and take the decision. Frankle clearly believed that probability of both beastliness and saintness exist inside the decisions taken by the individual not on the situations.

In this way the 'positive psychology developing in the 21st century put stress on the study of the positive aspect of human behaviour'. In the psychology of 20th century, more stress was kept on the study of negative aspects like anxiety, frustration, conflict, aggressiveness, psychological disorders etc. While from the beginning of the 21st century the study of positive aspects of human behaviour like socially helpful behaviour, happiness, joy, courage, optimism, self-respect, extroversion etc. have been speed up and because of that the foundation stone of new branch of psychology 'Positive Psychology' was laid down. In the last ten to fifteen years this branch has been developed and because of that Peterson (2006) state, that 'Positive Psychology has a short past and long history'.

Definitions and Goals of Positive Psychology

By carrying out the scientific study of virtues and strength of the common man, and through that improving the quality of human life has become a main aim of modern psychology. Martin Seligman may have been the first contemporary psychologist to call this new perspective "Positive Psychology". In 1954 Abraham Maslow in his book 'Motivation and Personality' wrote a chapter named 'Positive Psychology'. In this way the term positive psychology was initially used by Maslow, naming of 'positive psychology' as a branch of psychology was done by Martin Seligman.

In 1998 in his presidential address to the American Psychological Association, Seligman made a plea for a major shift in psychology's focus, from studying and trying to undo the worst in human behaviour, to studying and promoting the best in human behaviour. He asked his audience why psychology shouldn't study things like 'joy and courage'? Seligman's hope was that positive psychology would help expand the scope of psychology beyond the disease model to promote the study and understanding of healthy human functioning. The definitions of positive psychology are as under :

"Positive psychology is nothing more than the scientific study of ordinary human strength and virtues."
- *Sheldon and King (2001)*

"Positive psychology is the study of the conditions and process that contributes and to flourish optimal functioning of people, groups and institutions."
- *Gable and Haidt (2005)*

From the above mentioned definitions we can say that positive psychology is interested in the study through which factors like strength and virtues of the humans can be known. Seligman (2003) describes the three pillars of positive psychology and stated that positive psychology is built on the study of (1) positive subjective experiences (such as your happiness, contentment, optimism and hope) (2) positive individual characteristics such as personal strength and human values that promote mental health and (3) positive social institutions and communities that contribute to individual health and happiness.

Goals of positive psychology

According to Martin Seligman the main aim of positive psychology is refocusing the entire field of psychology. It means that till today the focus of psychology which was on the mental illness and disease should focus and pay attention to the study of positive things. It is encouraging them to find elements of positive psychology, represented in so many different areas of psychology from physiological to clinical psychology. Positive psychology is both a general perspective of the discipline of psychology and collection of research topics focused on positive aspects of human behaviour. According to Baumgardener and Crothers positive psychology as a developing branch has two goals :

1. To restore the balance of the field of psychology: This goal is reflected in two areas of research and theory that needs further development. First there is a need for improved understanding of positive human behaviour to balance the negative focuses more on main stream research and theory. A second need is to develop an empirically based conceptual understanding and language for describing healthy human functioning that parallels our classification and understanding of mental illness.

2. To understand the sources of health: It is arguably just as important to understand the sources of health as it is to understand the causes of illness. They clearly believe that we should be interested in preventing illness by promoting healthy lifestyles.

Happiness and Well-being :

Everyday, when we meet others, we are asked the question, "How are you?" And most of the people answer "fine" to that question. The response fine can be interpreted in many ways. Like you have good health, you are feeling well, you are doing well in your business, your relations with others are good etc., which means

that you are happy with your life. Positive psychology is also trying to find out the answer to the question what are the factors which make our life happy and satisfactory? Subjective well-being in everyday terms reflects an individual's own judgment about the quality of his or her life. Here the decision of whether you are happy or not is to be taken by one's own self.

1. Definition and causes of Happiness and Well-being:

Before understanding happiness and well-being we will try to understand the subjective and objective measures of happiness and well-being. The objective measures of happiness include financial and social indicators like income, age, occupation, job position etc., while the subjective measures include life satisfaction, presence of positive emotional experiences and absence or less amount of negative emotional experiences. Positive psychology tries to explain happiness and well-being in context of subjective happiness because objective indicators describe the life circumstances like age, income and occupation. But how individual feels about these measures and indicators is not known.

We have to remember here that positive psychologist do not consider happiness and well-being as different. They consider subjective well-being and happiness as synonyms of each other. The definition of happiness and well-being are as under :

"Subjective well-being refers to Persons evaluation of their lives – evaluations that are both effective and cognitive."

- Diener (2000)

By analyzing the above definition we can say that the people experience an abundance of subjective well being SWB when they feel many pleasant and few unpleasant emotions, when they are engaged in interesting activities, when they experience more pleasures and little pain and are satisfied with their life. Causes of happiness and well-being are also included in the above explanations of happiness and well-being.

2, Types of Happiness

When someone asks question " Are you satisfied with your current life? " For answering this question three things become important: (I) What is good life? (II) What is happiness ? (III) What is satisfying life? Answer to the third question depends on two things: (i) What kind of life do you wish to lead? (ii) How do you hope people will remember you?

In this way the ideas regarding happiness are more subjective then objective. Positive Psychology describes two types of happiness :

(I) Hedonic Happiness: Probably most of us would first hope for a long life – one that does not end prematurely. Suicide, however is a reminder that the quality of life is more important to many people than the quantity of life. As for quality of life, happiness might be number one on our list. Most people would likely

hope for happy and satisfying life, in which good things and pleasant experiences outnumber bad ones. Happiness seems to be an important part of how people define a good life. During the good life in terms of personal happiness is the general thrust of the hedonic view of well-being. According to hedonic view, the chief goal of life is the pursuit of happiness and pleasure. In positive psychology this type of view point regarding happiness is known as subjective well-being. Subjective well-being is a very broad concept compared to the concept of short term or physical pleasures. Studies have shown a variety of personality characteristics and life experiences that help to answer questions about who is happy? and what makes people happy?

(II Eudaimonic Happiness)

Is happiness enough for a good life? Would you be content and satisfied if you were happy and you don't have anything else? Consider a hypothetical example suggested by Seligman, what if you could be hooked to an "experience machine" that would keep you in a constant state of cheerful happiness, or whatever positive emotions you desire, no matter what happened in your life? Would you experience abundance of happiness all the time? Would you choose to be hooked up? We might like it for a while, but to experience only one of our many emotions and to have the same cheerful reacting to the diversity of life events and challenges might actually impoverish the experience of life. Above all, most of us would probably reject the experience machine because we believe that there is more to life than happiness and subjective pleasure. Eudaimonic conception of happiness is given fullest expression in the writings of Aristotle. Aristotle defines happiness as self-realization, meaning the expression and fulfilment of inner potentials. From this perspective, good life results from living in accordance with your daimon (in other words your true self). That means happiness results from striving towards self-actualization – a process in which our talents, needs and deeply held values direct the ways we conduct our lives. Happiness results from realization of our potentials. We are most happy when we follow and achieve our goals and develop our unique potentials.

3. Measuring Psychological Well-being

Early surveys and researches assessed people's sense of well-being by directly asking the questions and people were asked to judge about happiness, life satisfaction and feelings. Survey researchers asked questions like:

Question : Taking all things together how would you say things are these days?

Answer : Very happy, pretty happy, not too happy.

Question : How satisfied are you with your life as a whole?

Answer : Very satisfied, satisfied, not very satisfied, not at all satisfied.

Question : Which face comes closest to expressing how they feel about their life as whole?



In current research, SWB is widely considered to have three primary components that are assessed by multi-item scales and inventories. These three components are life satisfaction, positive affect and negative affect. Life satisfaction is a cognitive judgement concerning how satisfied a person is with his or her life. The emotional component 'positive and negative affect' refers to people's feelings about their lives, in which positive affect refers to the frequency and intensity of pleasant emotions such as happiness and joy. Negative affect refers to the frequency and intensity of unpleasant emotions such as sadness and worry.

Many of the measures of SWB can be taken online at Martin Seligman's 'Authentic Happiness website'. You can also log in to the website www.authentic-happiness.org and know the score of your subjective well-being.

Here we will collect the information regarding three aspects of subjective well-being like life satisfaction, positive affect and negative affect.

(I) Life Satisfaction Scale

Single item measures of life satisfaction have given way to multi-item scales with greater reliability and validity. One of the more widely used measures of life satisfaction is the satisfaction with life scale by Diener et. al (2002). This five items scale asks the participant to make a global evaluation of his or her life. You will enjoy evaluating yourself. To fill out the scale, simply indicate your degree of agreement or disagreement with each of the five statements using the 1-7 ratings described below :

7- Strongly agree

6- Agree

5- Slightly agree

4- Neither agree nor disagree

3- Slightly disagree

2- Disagree

1- Strongly disagree

The five sentences are as under :

(1) In most ways my life is close to my ideal.

(2) The conditions of my life are excellent.

(3) I am satisfied with my life.

(4) So far I have got the important things in my life.

(5) If I could live my life over, I would change almost nothing.

To score your response, add up your ratings across all five items.

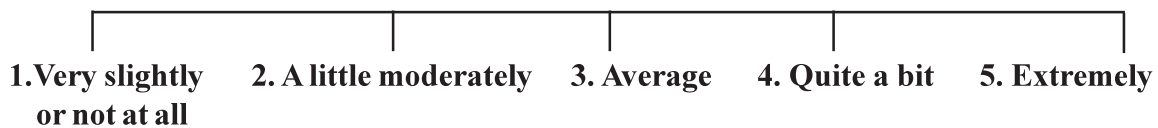
Diener et. All (2002) suggests the following interpretations :

Score	Interpretation
5 to 9	extremely dissatisfied
10 to 14	very dissatisfied
15 to 19	slightly dissatisfied
Score of 20	not satisfied or dissatisfied
21 to 25	somewhat satisfied
26 to 30	very satisfied
31 to 35	extremely satisfied

(II) Positive affect – Negative affect scale

A variety of scales are used to measure people’s emotional experiences. Some scales ask only about positive emotions, like happiness or joy, while other assess both positive and negative feelings. The more common method of assessing feelings is to ask people to rate the frequency and intensity of different emotions they experienced during a given time period. e.g. Diener and Emmons (1984) used nine descriptors to assess affect valence. The descriptors for positive affect were happy, pleased, joyful and enjoyment / fun. The adjectives for negative or unpleasant affect were worried / anxious, frustrated, angry / hostile, unhappy and depressed / blue.

Another example of a scale that is widely used to measure positive and negative affect is the ‘Positive Affectivity and Negative Affectivity Schedule’ (PANAS). It may be interesting to see how to score. To complete this measure, use the 1 – 5 rating scale to indicate how you feel right now.



Interested (PA)	-	Irritable (NA)
Distressed (NA)	-	Alert (PA)
Excited (PA)	-	Ashamed (NA)
Upset (PA)	-	Inspired (PA)
Strong (PA)	-	Nervous (NA)
Guilty (NA)	-	Determined (PA)
Scared (NA)	-	Attentive (PA)
Hostile (NA)	-	Jittery (NA)
Enthusiastic (PA)	-	Active (PA)
Proud (PA)	-	Afraid (NA)

To score your responses, add up separately your ratings for the 10 positive affect items (PA) and your ratings for 10 negative affect items. Each score can range from 10 to 50 indicating the degree of positive and negative affect. You can also see from this scale which emotions had the greatest impact on your current mood.

Gender Difference and Happiness

Who is happier – men or women ? Neither of them is happy. Large scale surveys find that women and men report approximately the same level of happiness. Surveys show results from life satisfaction and gender surveys of nearly 1,70,000 people in 16 nations. Other national survey in America affirm the general conclusion that there are few significant gender differences in overall happiness (Diener, Suh et al). Men and women are, on an average, equally likely to report feeling happy and satisfied with their lives as a whole. e.g., one study of 18,000 college students representing 39 different countries found no significant gender differences (Michalos 1991). Even studies that do report gender differences state that the differences, are small in magnitude. In their meta-analytic review of research, Haring, Stock and Okun (1984) concluded that men showed a slight tendency to report higher level of well-being than women. On the other hand a meta-analysis by Wood, Rhodes and Whelan (1998) reported a similar, slight tendency toward more happiness, for women rather than men. In short, knowing a person's gender won't tell you much about his or her happiness. We cannot find much difference in the happiness of a person on the basis of gender but in emotional experiences they defer that needs to be discussed.

1. Gender Differences in Negative Emotions

Women are much more likely to experience negative emotions and internalizing disorders such as depression and anxiety than men. Research shows that gender differences in depression and anxiety disorders appear early in life. Among girls, mood disorders typically appear between the ages of 11 to 15. No such early developmental onset is found in boys. Several reviews conclude that women report experiencing more sadness, fear, anxiety, shame and guilt than men. Women not only experience, but also express these negative emotions more than men. Review studies show that women express more sadness and fear when presented with negative emotional material. In contrast, in males negative situations externalizing disorders like drug abuse, antisocial personality disorder and problems associated with uncontrolled anger and aggression can be seen. The results of the research direct us that females are more likely to internalize the negative emotions and male are externalizing the negative emotions. Everywhere in the world it seems, males are more aggressive, rational and females show verbal aggressiveness. This means that if man is getting angry he will attack the other person and if woman is getting angry it will lead to arguments, wrangling and end of relationship with the person.

2. Positive Moods and Behaviour

Self-report studies of positive moods such as happiness, joy and love also reveal somewhat inconsistent gender patterns. A number of researchers have found that women report experiencing more happiness and more intense positive emotions than men. So, common conclusion is that females express more amount of

positive emotions than men. More women than men report expressing joy, happiness and love to others. Observational studies of women's non-verbal behaviour affirm the greater expressiveness of woman. e.g., ample of studies show that women smile more frequently than men. Studies of smiling in magazine and newspaper photos, together with observations of smiling among people in shopping malls and parks and on city streets all show that women smile more than men (Halberstadt and Saitta). Not only that, women also appear more skillful than men at reading non-verbal cues and correctly assessing the emotional states of others.

Marriage and Happiness

Most demographic variables like age, income, occupation, education, sex, marital status, show only small relationship to happiness. One major exception to this general pattern involves the effect of marriage on SWB. About 90% of us eventually marry and the vast majority of us will be happier as a result (Myers 2000). An extensive literature documents the relationship between marriage and higher levels of subjective well-being. When we say married people are more happy, but happier than whom? Higher than people who never married or who are divorced, separated or widowed. The marriage – happiness relationship has consistently been demonstrated in large scale surveys of Americans and Europeans. A meta-analytic review of 100 studies found marriage to be strong predictor of life satisfaction, happiness and overall well-being. One national survey of 35,000 people in the United States found that the percentage of married adults who said they were very happy was 40 %, it was nearly double than of those who never married (26%). Even when researchers control for the possible confounding effects of other variables such as income, age there is still a significant relationship between marriage and well-being, compared to other domains of life such as job status and health. Being married and having a family repeatedly show the strongest connections to life satisfaction and happiness.

Benefits of Marriage

Now the question comes to our mind that which factors are responsible for strong relationship between marriage and happiness? Are there any beneficial effects of marriage?. Then those who are getting married are going to be happy? Arguments for the benefits of marriage may begin with Baumeister and Leary's (1995) argument. They argue that human beings have a basic "need to belong". Countless studies reviewed by these and other authors show the importance of close, supportive and stable relationship to people's physical and emotional well-being. People consistently rank close relationship among their top life goals. Given that marriage is one major vehicle for fulfilment of this basic need and so married people would report higher level of well-being and happiness. Marriage has the potential to provide companionship, intimacy, love, affection and social support in times of crisis. The roles of spouse and parent may also provide opportunities for personal growth and the development of new competencies that increase self-esteem and satisfaction.

Marriage-happiness relationship is found across widely diverse cultures, independent of whether researchers ask about marriage quality. The significant drop in well-being when marriages end due to death, divorce or separation, provides further evidence for the benefits of marriage. The end of marriage may mean the loss of intimacy, companionship and emotional support and decreased financial resources.

The benefits of marriage are further revealed in terms of the higher level of emotional distress and mental illness found among people who are unmarried and living alone with few friends or confidants. In contrast, married people have a lower risk for experiencing depression, loneliness and physical or mental health problems, and live longer than individuals who are widowed, separated or divorced. Overall, married people generally enjoy better physical and mental health than unmarried people.

Marriage may also help people overcome problems in their lives. A seven year study of over 800 men and women found decrease in rates of depression and alcoholism among those who remained single. But positive psychologist agrees to one thing that happy marriage life is required for the well-being. So as Myers put it, "In terms of individual happiness, a bad marriage is worse than no marriage at all".

Happiness and Culture

Because societies are complex and multidimensional, it is difficult to give a specific definition of the term "culture". However culture generally refers to the social roles, norms, values, and practices that are shared by a social group or society and are transmitted across generations. Cultural differences can be found in groups, both large and small. Commonalities in national heritage, language, religion, ethnicity, race, age, gender, geographic location and historical events are among the many factors that contributed to cultural differences among nations. According to Kitayama and Markus (2000), growing up in particular culture leads to the internationalization of shared ways of understanding the world. Parents, school peers and the media instruct children in the ways of their culture. Initially, child is a part of the attitudes, norms and values seen in people of their culture, and then get influenced by the way people think, act and feel. Culture influences our goals and values, contributes to how we think about desirable and undesirable individual characteristics and behaviours and sets normative expectations concerning the meaning and achievement of a successful life. For positive psychologist, it is important to understand how culture shapes people's ideas about the meaning of happiness and how to achieve it.

Kitayama & Markus (2000) states two types of cultural differences-individualistic and collectivist. Individualistic culture put stress on individual identity and collective culture put stress on social identity. When you say I am a cricketer, 'I am intelligent', and 'I am shy' then you give your personal identity. While the sentences which belong to the group like 'I am Gujarati', 'I am the only child of my parents' and 'I belong to some specific social class' describes your social identity. The culture of America and Europe is the western individualistic culture, while India and other Asian countries have collectivist culture.

1. Western Culture and Happiness

Being happy, having a positive attitude and feeling good about the self are central values in American culture. American society that offers abundant opportunity and considerable individual freedom, these people are encouraged to make life choices based on what makes them happy and satisfied. What makes Americans happy is heavily influenced by their culture's individualistic model of self.

Subjective well-being for Americans is an individual's subjective judgement about his or her own life. Americans believe that what makes me happy may not make you happy, because happiness is highly individualized. Extensive research reviews permit a general characterization of the American style of happiness. From an early age American children seem to be taught two culturally defined lessons. First, happiness and feeling good about you are important goals and valid criteria for making choices. That is people 'should' be happy and when making a decision it is important to consider its effects on one's happiness and satisfaction. Secondly happiness results from finding out that who you are in terms of your individual identity and then pursuing those activities that express these self-defining characteristics. American culture put stress on the recognition of one's abilities and personality characteristics and to develop them. Children are encouraged to develop a distinctive sense of self they can feel good about and then to follow this self largely independent of the influence of others. Happiness results from being 'true to yourself'.

2. Eastern Culture and Happiness

In America's individualistic culture, individual happiness is an important cultural value and ideal. Children are encouraged to be emotionally expressive, to take pride in their achievements, stand out from others, and to take a positive and self-enhancing view of themselves. This can be contrasted with Asian cultures, in which happiness has less importance as a cultural ideal and children are encouraged to moderate their emotions, fit in with others, take pride in achievements of their group and to adopt a self-critical and self-effacing attitude towards themselves.

Cultural Ideals : Within East Asian societies, happiness appears less important as a culturally prescribed goal and life satisfaction is based more on external and normative expectations than on individualized criteria. Asians do not consider individual happiness much important.

Emotional Expressiveness: Within Asian culture excessive exuberance may be regarded as indicating a lack of maturity or refinement. Asians certainly do experience and enjoy happiness, but these emotions do not function as central life goals or prominent criteria for life decisions.

Group Pride and Sensitivity : In Asian cultures, emotional experience and assessments of well-being are intimately connected to relationship. How you are viewed by others is critical to how you view yourself. Asian culture put stress on "sympathetic relationship" with others. Sympathy here refers to an interdependent relationship in which individuals are expected to attune themselves empathetically to the feelings and thoughts of others. Children are expected to learn how to adjust themselves to others so as to enhance and maintain harmonious social relationships.

Self-critical Attitude: Another significant feature of East Asian relationship is the important role of a self-critical attitude in promoting mutual trust and support. In Asian culture social approval requires the expression of a self-critical attitude that invites sympathetic and supportive responses. Here if an individual praise one's own qualities then it is not considered good. An old American adage advises that 'if you can't say something positive don't say anything at all'. While people staying in the Asian culture believe that, "if you are not able to

accept your shortcomings then you should not expect sympathy from others”. So we can say American’s consider ‘what they believe’ and Asians consider ‘what others believe’ as important for happiness.

Exercises

Section – A

Answer the following questions from the answers given below :

- 1) Who noted that “Positive psychology has long history and short past.”
(a) Seligman (b) Maslow
(c) Peaterson (d) Rogers
- 2) Who gave the name ‘Positive psychology’ as a branch of psychology?
(a) Abhraham Maslow (b) Carl Rogers
(c) Victor Frankle (d) Martin Seligman
- 3) Which book of Abhraham Maslow is having a chapter on ‘positive psychology’?
(a) Psychology for living (b) Motivation and personality
(c) Think positive be positive (d) Happiness and well-being
- 4) From the following which experience is not a positive individualistic experience ?
(a) Happiness (b) Satisfaction
(c) Frustration (d) Hope and idealism
- 5) Which of the following is included in the objective measures of happiness and well-being?
(a) Life satisfaction (b) Positive emotional experience
(c) Income (d) Negative emotional experiences
- 6) According to Aristotle what is happiness and well-being?
(a) Self-realization (b) Interpretation of expression
(c) Completely developing the internal strength (d) All the above a, b and c
- 7) Which is the adjective describing negative expression?
(a) Strong determination (b) Excitement
(c) Pride (d) Shamelessness

- 8) According to positive psychologists who is more happy?
(a) Women (b) Men
(c) Both are equally happy (d) Can't say anything
- 9) Who is more expert in identifying non-verbal clues?
(a) Women (b) Men
(c) Both are equally capable (d) Can't say anything
- 10) From the options below what can be included in the culture?
(a) Social rules (b) Social norms
(c) Social values (d) All the above a, b & c

Section – B

Answer the following questions in short (about 30 words) :

- 1) What does Victor Frankle think about the meaningfulness of human life?
- 2) Give definition of positive psychology.
- 3) Give definition of happiness and well-being.
- 4) Give the list of the positive affects stated in the positive negative affect scale.
- 5) In men what type of problems are created in the negative situations?
- 6) Married people are happier than whom?
- 7) State the Myers' opinion about happy marriage life for happiness.
- 8) From the onset of 21st century which positive aspects are being studied in psychology?
- 9) What is culture?
- 10) Which are the central values of American culture regarding happiness?

Section – D

Answer the following questions in around 50 words :

- 1) Describe the goals of positive psychology.
- 2) Describe the causes of happiness and well-being.
- 3) Explain Positive moods and behaviour.
- 4) Describe the three pillars of positive psychology stated by Seligman.

- 5) Describe the five statements of life satisfaction scale.
- 6) Explain marriage and happiness in short.
- 7) What is group pride and sensitivity according to Eastern culture?
- 8) What is self-critical attitude according to eastern culture?
- 9) Give the example of 'Experience Machine' given by Seligman.
- 10) Explain in short about individualistic happiness.

Section – E

Answer the following questions in about 80 words :

- 1) Explain Eudaimonic happiness.
- 2) Explain positive negative affect scale.
- 3) Explain negative emotions and gender differences.
- 4) Describe western culture and happiness.
- 5) Explain the advantages of marriage.

