PGED S1-02

Psychological Foundation of Education

SEMESTER - I

EDUCATION

BLOCK 2



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BLOCK INTRODUCTION (COURSE 2, BLOCK 2)

This is the second block of the course. In this course, the *Eight Unit* deals with the meaning of memory and forgetting, and the types of memory and forgetting. The *Ninth Unit* explains the meaning and nature of reasoning and throws light on some strategies for effective problem solving. The *Tenth Unit* discusses the concept of personality, theories of personality and defence mechanism. The *Eleventh Unit* explains how to educate the exceptional children in detail. The *Twelfth Unit* shall discuss the concept of mental health and hygiene and the role of school, home and the society for promoting mental health and hygiene. The *Thirteenth Unit* deals with the meaning and nature of creativity and relationship between creativity and intelligence. The *Fourteenth Unit* deals with the meaning and nature of aptitude and utility of aptitude test. The *Fifteenth Unit* which is also the last unit of this course, shall discuss the causes and prevention of juvenile delinquncy.

While going through this block, you will come across some along-side boxes, which are put on the left side or right side of the text. These boxes will explain you meaning of some words and concepts within the text. Apart from this, there will be some broad and short questions which have been included under 'ACTIVITY' and 'CHECK YOUR PROGRESS' in every unit. Activities will increase your thinking capacity because qestions put in Activity are not directly derived from text. Hints on the answers to the short questions have been put under section 'ANSWERS TO CHECK YOUR PROGRESS'. Besides, a few text-related questions have been put in 'POSSIBLE QUESTIONS'. These questions will help to draw your attention on the probable topics for the examination so that you can prepare for the examination with confidence.

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UNIT 8: MEMORY AND FORGETTING

UNIT STRUCTURE

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- 8.6.2 Characteristics of Forgetting

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8.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- explain the meaning, definitions and characteristics of memory;
- discuss the different types of memory;
- describe the different measures for memory training /improvement process;
- explain the meaning of forgetting; and
- discuss different theories of forgetting.

8.2 INTRODUCTION

Memory plays an important role in our life. Learning will make no sense if we do not retain it. It is only the capacity of memory, which enables

us to relate different events, experiences, conditions, people, and objects. In our everyday life, almost all activities in one way or the other deal with memory. Memory establishes links across diverse experiences. Thus, memory is a great mental capacity. It is really a great magical power of our life. It is needed for mastering the cognitive competencies, solving different problems of our life as well as in making social relationships. Loss of memory means loss of one's self. In this unit, we shall discuss memory, the definitions of memory, types, and the methods of improving memory. Forgetting, its meaning, characteristics and theories are also discussed at the concluding part of the unit.

8.3 MEANING OF MEMORY

Memory is popularly defined as the power of reproduction or recollection of past events. It is the recall of an old personal experience, which had temporarily dropped from our consciousness. It is the ability or faculty of remembering. The mind has the power to conserve the experiences or the after effects of activity, and reproduces them whenever needed. The capacity to conserve the past and reproduce them when necessary is known as memory. Thus, memory is a remarkable mental process or system, which receives information from external or internal stimuli, retains it and makes it available on a future occasion. It provides continuity to our experiences across different time points. However, it is worth mentioning that this simple characteristic of memory does not mean that our memory is like a tape recorder, which records something and plays whenever we demand. Our memory system performs this but it is more dynamic and versatile than that. We remember not only verbal material but also visual experiences, tactile impressions, feelings of different emotions, like pain and joy, motor skill, events, activities and so on.

8.3.1 Definitions of Memory

For a Layman, memory implies the power to remember the experience. However, the psychologists have attempted to define memory in different ways. A few definitions of memory are given below:

According to Stout, "Memory is the ideal revival, as far as ideal real revival is merely reproduction in which the objects of past experience are reinstated as far as possible in the order and manner of their original occurrences."

According to Woodworth, "Memory consists in remembering what has previously been learnt."

Ross defines memory as "a complex process involving the establishment of dispositions, their retention and the recalling of experiences that have left the disposition behind them." Thus, memory is a "new experience determined by the disposition laid down by previous experiences, the relation between the two being clearly apprehended."

According to McDougal, "In the strictest or narrowest sense, memory or remembering implies imagining of events as experienced in the past."

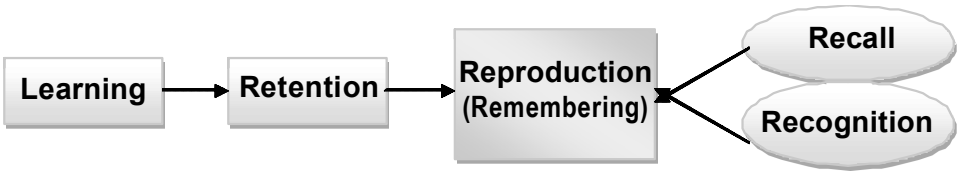
Ryburn *has given a simple definition of memory* as "The power that we have to store experience and bring them into the field of consciousness something after the experience have occurred, is termed memory."

From the analysis of the above definitions, we may conclude that memory is a three-fold function of mind that involves learning, retaining and remembering. Their nature may be stated as the following:

- **Learning** or registration means individual needs to derive sense experience from the environment in order to register its impression in the mind.
- **Retaining:** Learning experience received is being retained in the form of image. Retention is the factor responsible for preserving the material learnt.
- **Recall:** It is the mental revival of those experiences which have been learnt. This mental revival may again take the form of recall and recognition.

Memory is, therefore, the conservation of past experiences to be utilized later, as and when the occasion arises. It involves

learning, retention, recall, and recognition. The process of memorization starts with learning or experiencing something. It ends with its revival and reproduction. It is also known as remembering. Remembering may take the form of recall and recognition. Recall is the mental revival of past event. On the other hand, recognition is the mental process of identifying or verifying of past images. These four factors are interrelated. Recall is impossible without retention, and retention is useless without recall. Again, retention and recall both would be meaningless without recognition. In short, we can present the process of memorization as the following:



8.3.2 Characteristics of Memory

After discussing the meaning and definitions of memory, we can point out some important characteristics of memory process as the following:

- Memory consists of the recollection of previous experiences.
- Memory is a mental process, which consists in learning, retaining, and remembering.
- Memory is determined by the retaining power of the individual.
- Memory is an active process of our mind. It is not passive.
- Ancient psychologists explained memory as a mental power. But, in modern times, memory is a mental process not a mental power.
- Act of memorization depends upon sensory experiences. Thus, memory cannot take place without sensory experiences.
- Our unconscious mind plays an important role in the memory process.
- Memory is a mechanical process. There is no place for creativity in memory.

- Repetition is an essential condition of memory. It makes learning long lasting. On the other hand, lack of repetition induces forgetting.
- Memory is influenced by intellectual ability of the individual. A good mental organization improves memory.
- We neither receive nor retain all the experiences presented to us because there is great deal of selectivity related with the process of memory.



CHECK YOUR PROGRESS

Q.1: What is memory? State some characteristics of memory.

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8.4 TYPES OF MEMORY

Psychologists have classified memory into certain types on the basis of their nature and functions. These are:

a) **Habit memory and True Memory or Image:** The famous psychologist Burgson divided memory broadly into two types as– habit memory and true memory. According to Burgson, past experiences survive in two forms– through motor mechanism and through independent recollection. Memory formed through motor mechanism i.e. physical repetition of an activity is known as the

habit memory. Habit is a function of the body. When our memory is a product of the repetitions of bodily activity, then it is known as habit memory. Thus, habit memory depends more on physical repetition than on images retained in mind. It is a mechanical type of memory. No mental efforts are needed in this type of memory. Typing, swimming, playing musical instruments etc. are examples of habit memory. Similarly, we remember multiplication table because of habit memory, as we have learned these by rote as verbal habit .On the other hand, true memory involves images or mental pictures of object of memory. To get true memory, we have to store images of our learning in our mind. This type of memory is also known as pure memory because our true ability of memorization finds expression in this type of memory on the basis of mental images. True memory is related to our mind. It depends upon our retaining power.

b) **Immediate Memory and Permanent Memory:** Immediate memory is needed when we want to remember a thing for a short time and then forget it. We enter the cinema-hall and remember the seat number given on our ticket. After occupying the seat, we forget it. It is an example of immediate memory. It helps us to learn a thing immediately with speed and accuracy, remembering it for a short time and forget it rapidly after use. In immediate memory, the retention time is very brief i.e. the time gap between learning and remembering is very short. Under permanent memory, it is possible to remember a thing permanently. In permanent memory, the time gap between learning and remembering is long. We have to retain our experiences for long. Remembering of our name is the simplest example of our permanent memory. Permanent memory is the best form of memory.

c) **Logical Memory and Rote memory:** Logical memory is based on logical thinking. It takes into consideration the purposeful and insightful learning. Here, instead of mechanical memorization, the learner tries to understand what he learns and why he learns. Logical learning needs intelligence, reasoning, the power of understanding

etc. It can be compared to pure memory. On the other hand, rote memory is a mechanical type of memory. It is based on verbal repetition. There is no need of applying understanding, intelligence, logical ability etc. Some students have a good rote memory. They can mug up the material and produce it at the time of examination. It is a very temporary type of memory.

d) **Active Memory and Passive Memory:** In active memory, one has to remain active or make deliberate attempts for recollecting the past experiences. In answering the question in examination hall, we are required to make use of this type of memory. In passive memory, the past experiences are recalled spontaneously. For example, when somebody comes from our native village the mere sight of him is enough to remind us about our fields, neighbours and other so many related things.

e) **Associated Memory:** Associative memory is an attempt to remember something by associating it with a similar experience. The individual having this type of memory is able to associate the previously learned things with so many related things and then establish multiple connections. There are few factors or principles of association, which influence over associative memory, such as, law of similarity, law of dissimilarity, law of contiguity etc. For example, the daughters' face reminds us about her mother, because of similarity, black reminds us white because of dissimilarity, freedom movement remind us about Mahatma Gandhi because of contiguity so on .

f) **Sensory Memory:** We gather information through our senses. The memory that we get from immediate sensory experience is known as sensory memory. For example, if we hold a picture in front of us and look at it steadily for a while, then after closing our eyes we can notice a clear image of the picture last before us. Usually, the image of any object lasts in our sensory memory for about ½ a second. Sensory memory is a type of memory that occurs within the sense while it is being transmitted to the brain. With the help of five sense

organs, we can get five different types of sensory memory such as visual, auditory, tactual, olfactory and gustatory. In our day-to-day life, we mostly used visual and auditory memory.

g) **Short Term Memory and Long term Memory:** Modern psychologists have classified memory as short-term memory and long-term memory on the basis of modern information processing model. These are similar to immediate and permanent memory. We are continually bombarded by different sensory stimulations from our environment. However, we cannot respond to all of them. We focus our attention on those things, which are significant. The process of attention limits our inputs of information from the environment. Thus, through selective attention, the information enters short-term memory. It holds information for few seconds. Then, we encode the information and it goes to long-term memory. Long-term memory has the capacity to retain information. It is relatively permanent memory in which information is stored for use at a later time.



CHECK YOUR PROGRESS

Q.2: Identify which type of memory seems to operate in the following cases:

a) Playing a musical instrument.

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b) Using a telephone number from telephone diary.

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c) A teacher while teaching about a poem recites from memory a poem of the same poet, which she learnt in her childhood.

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d) Answering a question in examination hall using reasoning.

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e) Remembering the name of your school friend.

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Q.3: Explain:

a) Rote memory and Logical memory.

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b) Immediate memory and Permanent memory.

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8.5 TRAINING FOR IMPROVING MEMORY

Improvement of memory is a commonly expressed desire on the part of every individual. However, whether memory can be improved by training or not is a controversial issue. William McDougal had expressed his view that memory can be improved by practice. On the other hand, William James maintained that retentiveness is a physiological ability and hence, it is unchangeable. It is innate and mostly depends upon heredity. Easy grasp and rapid recall mainly depend upon one's intelligence. It is the power of learning, not the power of retention that is improved by practice. Therefore, some improvement of memory is possible if one could improve the conditions and methods of learning.

Thus, Stout contends that memory can be improved, but only in special directions. According to him, there is no improvement of general memory ability through practice. We can improve memory in some specific area through training. By long practice, the actors came to remember and recall their dialogues. However, the effects of practice are strictly confined to the special field and do not spread to other fields of work.

From the above discussion, it may be stated that we cannot expect general improvement of our memory. Certain favourable conditions may

help in the effective use of memory. In general, the improvement of memory consists in improved management of learning process. While going to improve the memory of a child, we may approach the problem from two channels:

A) Favourable conditions which improve remembering.

B) Economic methods which improve memory.

A) Favourable conditions which improve remembering:

- **Will to learn:** The learners' will or intention to learn affects the retention of the material. Intention to learn enhances concentrations. In addition, concentration gives longer retention and better recall. Material, read, heard, or seen without intention are difficult to remember.
- **Interest:** Interest is an essential condition of memory. We easily recall the items that interest us most. For example, if a boy is interested in sports then he will easily recall different sport news. A shopkeeper will recall readily and accurately the price of each commodity.
- **Motivation:** Motivation is an important condition of memory. Motivation facilitates learning and enhances memory. Motivation kindles interest. Interest is the mother of attention, which is the mother of memory.
- **Rest:** Rest is an important psychophysical condition of learning and remembering. Rest can remove fatigue and boredom. Any event or learning which takes place in healthful condition and atmosphere free from fatigue improves remembering.
- **Emotion:** While trying to recall something, the child should be free from excessive anxiety, fear and other emotional factors that try to block memory. Sometimes, an emotion fixes a memory forever, sometimes sustained attention and sometimes an association of one fact with another.
- **Association:** The principle of association is very helpful in remembering and recall. When two ideas are associated with each other, one idea gives rise to a number of old ideas associated with it.

- **Meaningfulness:** Meaningfulness of materials is important in effective learning and longer retention.
- **Rhythm:** Rhythm is an aid to memory. Children get to remember songs and poems when they hear by recitation and not by mere reading. Poetry is more easily memorized, because of its natural rhythm.
- **Organization:** While preparing for learning, a learner needs to pay attention to organize the material in some form. Such an organization may help by creating a natural context and provide relevant cues while remembering the learned material. In the absence of natural organization, the learner may create an artificial one. The failure of students in recalling the materials learnt is mainly on account of poor organization.
- **Frequency:** The idea that comes to our mind frequently i.e. repeated frequency is recalled easily. Therefore, we can recall school assembly prayer very easily.

B) Economic methods, which improve memory: Memory can be improved with improved method in addition to the above noted favourable conditions. A few such methods to economize memorization are suggested below:

- **Recitation:** Recitation is an important technique to affect economy in memory. It means speaking and reciting to oneself. It implies that learning should be done by repeating a lesson, while laying stress on sound pronunciation, reading etc. Recitation again is a device helpful for retention. Recitation means repeating aloud a poem or a passage from memory. However, recitation may be sub vocal. Recitation, vocal or sub vocal, is useful to a student because it enables him to use the material before a lapse of time causes forgetting. It immediately motivates the learner by making the learner aware of the degree of success being achieved; it helps the learner to use it.
- **Periodic review:** Periodic review of learned material improves memory. It has been found experimentally that the closer the

review is to original leaning the greater is the amount retained. This indicates that review, soon after the original learning, may prevent rapid forgetting that normally takes places immediately after practice.

- **Over learning:** The repetition of some matter after it has been learnt to the point of one successful reproduction is called over learning. Over learning minimize forgetting and fixes the new material permanently in the mind of the learner. Longer amount of over learning brings larger degree of retention. If we have a topic, and it has been learned once, it is forgotten but over learning makes it permanent. For example, if 5 repetitions of a poem are needed to recite it, 10 repetitions would fix it in the mind for a longer time. Over learning makes initial learning thorough and permanent. However, these repetitions should not be simply unintelligent ones. They should involve reviewing the material just read, reciting to oneself, placing the material in a new context, and reading similar materials in another context. The educational significance of over learning to the classroom teacher and the student is great. Students should be encouraged to review immediately the work they have just completed.
- **Whole versus part method:** One can learn a lesson as a whole or in parts. Memorization is not only facilitated by over learning. It is also facilitated by the whole method, which means that a long poem can be committed to memory by reading and rereading. If on the other hand, the poem or the passage is learnt verse by verse or sentence by sentence, it is learnt by the part method. Experiments have shown that about $1/5^{th}$ of the time of learning can be economized by the use of whole method as against part method. There are advantages and disadvantages of both these methods. A combination of these methods is suggested. When a child is required to learn a poem or a passage in prose, its meaning should first be made clear to him. Some part of it may be difficult, e.g., some phrases may be hard to understand on

the part of the learner. These parts may be learnt by the part method. After that, each part may be placed in total context. Such a combination of two methods may be little more time consuming, but it is helpful for memorization. Which method should be adopted depends upon the nature and size of the material to be learnt and the intelligence of the learner. If the material is meaningful, the whole method is advantageous; if the size of the material is short, it is useful to learn it by part method, and if the learner is intelligent, he/she learns a material by whole method more easily.

- **Mass versus Distributed /Spaced learning:** It is psychologically sound to reasonably space the learning time. It is a simple fact that an hour spent every day in learning a subject results in more thorough and permanent learning than the same number of hours, devoted to its study at the end of the term. Spaced or distributed effort at learning any subject results in more learning than in massed one. Spaced learning is also economical and effective. The reasons are given below:
  - Massed learning by sticking to a task for longer periods by the child develops a tendency to inattentiveness. One's attention fluctuates if one tries to concentrate on a job for longer periods.
  - Trying to do the same thing repeatedly within a short space of time is against the natural tendency to resist early repetition of an act.
  - It means that the study period should be short and not very long. However, how short should the study period be? It depends upon the individual learner, the material to be learnt, and the conditions under which the material is learnt. The more mature the individual, the more capable he is for prolonged work. If the material requires constant attention and is difficult to learn, shorter periods are more fruitful. Long periods of study are not always fruitless. If the material is too

easy, longer periods of study are recommended. If motivation is high, massed practice is useful. The principle of distributed effort has a great significance for the timetable builders. It is convenient for the student to learn different subjects in different periods.

- Massed practice causes boredom and boredom causes errors. Hence, distributed effort is particularly advantageous in learning many motor skills like typewriting. Proficiency in simple motor activities can be achieved in relatively short practice periods once or twice a day until competence is gained. The practice periods for younger students should be shorter than those for the older ones.

- **Learning by doing:** Learning by doing or active learning produces more permanent effect than passive learning. By activity, we do not mean simply muscular activity. One has to be mentally active if one wants to learn speedily, precisely, and retain it permanently. When the child listens to the lecture given by the teacher, he is mentally active, but he is mentally more active when he recites and discusses. Listening as a process may be derogated but here too the listener has to accept or reject the ideas presented. In a traditional school, where the child sits and listens, he does not learn effectively. In a progressive school in which activity is involved in the learning process, there is a better learning and retention, provided the activity is meaningful.
- **Mnemonics:** Memory can be formed by a system of forming artificial association. Rote memory is sometimes improved by the use of arbitrary and artificial association called Mnemonics. For example, the use of mnemonics such as 'VIBGYOR' helps in easy remembering and longer retention of the colours of rainbow. The jingle 'Thirty days hath September' also serves as Mnemonics device. Here a learner could use acronyms i.e. first letter of each of the points being mastered, or an arrangement that makes the points meaningful to pronounce. Thus, when the

individual wants to recall, it will be very easy to retrieve it from memory. A typical example is the arrangement of the characteristics of living things as MR NIGER i.e. M = Movement, R = Respiration, N = Nutrition, I = Irritability, G = Growth, E = Excretion, and R = Reproduction.

In short, we can conclude that improvement of memory depends upon some specific conditions or factors and on some specific methods of learning. Thus, it demands the necessary improvement in the techniques and methods of learning, the learning situations or environment and learner's state of mind.



CHECK YOUR PROGRESS

Q.4: Mention some of the favourable conditions which help in memory training.

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Q.5: Mention some economic methods which help to improve memory.

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8.5.1 Role of the Teacher in Improvement of Memory

In order to improve the memory of the students, the teacher should take the following steps:

- The teacher should try to use the improved methods of teaching and guide the students properly and nicely.
- The question that the teacher is going to put to the students should be clear.
- Students should be made to pay proper attention before they learn a particular lesson.

- Unnecessary things should be avoided and rote memory as far as possible should be discouraged.
- Students should be encouraged to remember things in the way they can.
- Correlation should be established between different subjects and life.
- Interest and intelligence of the students should be kept in mind.
- The students should be encouraged to have the will to learn a thing.
- Learning of the lessons should be spaced. Proper interval should be given in repeating a thing and learning it.

8.6 MEANING OF FORGETTING

Forgetting is the failure to recall past experiences and is generally taken as a mark of poor memory. After learning, we try to retain everything we learn. However, in spite of our best efforts it is not possible for us to remember everything. This inability to remember is commonly known as forgetting. Forgetting is a typical mental condition, which is present in all kinds of learning. A psychological phenomenon occurs in between retaining and remembering. It is just the opposite side of remembering and essentially a failure in the ability of reproducing.

It is a common experience that the memory of many events and experiences become 'dim' over time. According to Freud, forgetting is caused by a motive of displeasure. We forget because we do not want to remember something. We may exclude memories or push them out of consciousness intentionally to protect our mental health. Thus, forgetting may be considered a defense mechanism of mind.

Generally, we are always worried about forgetting. However, forgetting may be considered a boon to us. It may be considered an essential condition of memory. We have hundreds and thousands of experiences every day in our life. To remember all of these without forgetting will be a difficult task. Forgetting makes room to accommodate new experiences in our mind. Thus, forgetting need not be always to our disadvantage. Indeed, when we

consider the number of experiences that we have and a good deal of them unpleasant, forgetting is a blessing to human being. One must be able to forget the incorrect responses in order to acquire correct ones. Therefore, it is said, "to remember well, we must forget great deal". Our life would have been miserable, if we were to remember all sort of experience. But, unreasonable and excessive forgetfulness causes great harm to us. Forgetting should not be confused with unlearning .Unlearning is to reduce the strength of a habit deliberately while forgetting is the automatic dropping out of a habit because of a number of factors.

8.6.1 Definitions of Forgetting

We are well acquainted with the process of forgetting. But, to get a clear concept of the term, some definitions are given below:

- According to Munn– Forgetting is the loss, permanent or temporary, at the ability to recall or recognize something learned earlier.
- According to Drever– Forgetting means failure at any time to recall an experience, when attempting to do so, or perform an action previously learned. In this way, forgetting is just the opposition of remembering and essentially a failure in the ability of reproducing.
- Bhatia defines forgetting as– Forgetting is the failure of the individual to receive in consciousness an idea or group of ideas without the help of the original stimulus.

You must have seen that in all these definitions, forgetting is termed as memory failure**.**

8.6.2 Characteristics of Forgetting

Forgetting as a psychological phenomenon has some specific characteristics. It is necessary to discuss about these characteristics to get a better grasp of it. Some important characteristics of forgetting are mentioned below:

- It is the permanent or temporary loss of the ability to remember. In this way, forgetting is just the opposite of remembering.
- It is a psychological phenomenon that occurs in between retaining and remembering.
- It is a tropical mental condition, which is present in all kinds of learning.
- It is an essential aspect of the leaning process. Irrelevant aspects of learning should always be forgotten in order to make room for learning of relevant ones.
- It is an essential condition of memory.
- Forgetting protect our mental health as a defense mechanism.

8.7 THEORIES OF FORGETTING

Forgetting is a universal phenomenon. It appears in every human being in some degree. Everyone forgets things; like a person's name, where they left their keys, the ending to a movie, or how to do math problems. However, the reason why we forget something may differ. Have you ever felt like a piece of information has just disappeared from memory? Alternatively, have you had situations where you have no memory of a certain event? Or maybe, you know certain pieces of information exist in your mind, but you just cannot seem to retrieve it. The concern about the causes of forgetting as to how and why it happens has led to extensive research and development of some theories of forgetting. There are several theories that address why we forget memories and information over time. Some of the important theories of forgetting are:

- **The Trace Decay Theory:** Trace decay (also called disuse theory) is the earliest theory of forgetting. According to this theory, forgetting is thought to be due to the fading of or decay of memory traces in the brain with the passage of time, as a result of general metabolic process of brain. These traces are also called as engrams. These memory traces, which are formed in our neurological systems, are responsible for our memory. This notion was proposed by early psychologists as a general explanation of forgetting. The Decay theory suggests that

a memory trace begins to fade and disappear, unless it is occasionally used. It means if learnt processes are not used for a long time, the traces get faded and become unavailable. Thus, this theory of forgetting states that all memories fade automatically as a function of time. Hence, it is the lapse of time that is responsible for forgetting.

But, this explanation is not considered a complete explanation of forgetting. This theory has been proved inadequate on several grounds. Most theorists believe that once information has been transferred to long-term memory, it is stored there permanently. The theorists believe that the memory is always there, but the mental path to get to the memory has decayed. For example, people might easily remember their first day of high school, but completely forget the last movie they saw. Similarly, people remember many events of early childhood during old age without distortion. This may be because of the strong links (emotion, visual, etc.) the person has to the memory. This is why, people, who see a horrific accident, have a hard time in forgetting it. With the Decay theory, when information fades, what really fades is the link to that information, not the information itself. The information is there, but we just cannot find it. It is like a path in the woods that leads to a cabin; the more you use the path, the easily it is to find the cabin. However, if you do not use the path for several years, the path will eventually fade. The cabin will still exist, but will be harder to find because the path that leads there has faded.

Another argument given by the psychologists against this decay theory is that, if forgetting takes place because memory traces decay due to disuse, then people who go to sleep after memorizing should forget more compared to those who remain awake, simply because there is no way in which memory traces can be put to use during sleep. Results, however, show just the opposite. Those who remain awake after memorizing (waking condition) show greater forgetting than those who sleep (sleeping condition). Thus, this theory cannot explain forgetting adequately.

- **Theory of Inhibition or Interference:** If forgetting is not due to trace decay then why does it take place? The trace decay theory was soon replaced by another theory of forgetting which suggested that interference is the main cause of forgetting. This interference theory of forgetting has perhaps been the most influential one. It suggests that forgetting is due to interference between various information that the memory store contains. This theory explains that, all our learning and experiences create memory traces. When more and more memory traces are formed, some overlapping of traces takes place resulting in the obliteration and interference. The Interference theory suggests that some memories compete and interfere with other memories, and that memory loss occurs when information stored either before or after a given memory hinders the ability to remember it.

  This theory assumes that learning and memorizing involve forming of associations. People keep acquiring numerous such associations and each of these rests independently without any mutual conflict. However, interference comes about at a time of retrieval when these various sets of associations compete with each other for retrieval.

  - **Retroactive inhibition:** Retroactive interference occurs when new information interferes with your ability to remember previously learned information. It is called retroactive because the interference is with the memory of events that came before the interfering activity. For example, a student learnt about interest in psychology last week, this week he learns about attention. Now, he tries to recall information about interest but the points pertaining to attention will come to his memory. It occurs when information works backwards to interfere with earlier information, so previously learned information is lost because it is mixed up with new and somewhat similar information. Thus, retroactive inhibition is backward moving.

- **Proactive inhibition:** Proactive interference occurs when an old memory makes it more difficult to remember new information. If the earlier learning interferes with later learning and inhibits recall of new material, it is known as proactive inhibition. This often occurs when memories are learnt in similar contexts, or regarding similar things. For example, you could have trouble learning a new math concept because it conflicts with preconceived notions or assumptions you may have regarding a similar topic. Similarly, if you know English, you find it difficult to learn French. Here current information is lost because it is mixed up with previously learned information that may be similar. Proactive inhibition is forward moving.



LET US KNOW

- **Retroactive Inference:** Retroactive inference occurs when newly learned information makes people forget old information.
- **Proactive Inference:** Proactive Inference occurs when old information makes people forget newly learned information.

- **Forgetting due to Retrieval Failure:** Retrieval cues are aids, which help us in recovering information stored in the memory. Forgetting can occur not only because the memory traces have decayed over time (as suggested by the disuse theory) or because independent sets of stored associations compete at the time of recall (as suggested by the interference theory), but also because at the time of recall, either the retrieval cues are absent or they are inappropriate. Hence, the inability to retrieve a memory is one of the most common causes of forgetting. This retrieval failure is the failure to recall a memory due to missing stimuli or cues that were present at the time the memory was encoded. Retrieval failure forgetting is also known as 'Cue-dependent forgetting'. Generally, the failure to recall information occurs in the absence of memory cues. With retrieval

failure, the information still exists in memory, but just not readily available without specific cues. This theory tells that a memory is temporarily forgotten simply because it cannot be retrieved, but with the proper cue, that information can be brought to mind. For example, you might not remember the name of an actor in a movie, but his name might suddenly pop into your mind if you see a clip from a movie For example, you might not remember the name of an actor in a movie, if someone tells you the name begins with the letter "L". The movie or the letter would be acting as a cue for remembering the actor's name. There are three types of cues that can stop this type of forgetting:

Semantic cues are used when a memory is retrieved because of its association with another memory. For example, someone forgets everything about his trip to Ohio until he is reminded that he visited a certain friend there, and that cue causes him to recollect many more events of the trip.

State-dependent cues are governed by the state of mind at the time of encoding. The emotional or mental state of the person (such as being inebriated, drugged, upset, anxious, or happy) is the key to establishing cues. Under cue-dependent forgetting theory, a memory might be forgotten until a person is in the same state.

Context-dependent cues depend on the environment and situation. Memory retrieval can be facilitated or triggered by replication of the context in which the memory was encoded. Such conditions can include weather, company, location, and the smell of a particular odour, hearing a certain song, or even tasting a specific flavor.

- **The Repression Theory:** Repression is a defensive mechanism. Some individuals undergo experience that is traumatic. A traumatic experience emotionally hurts a person. People may actively work to forget memories, especially those of traumatic or disturbing events or experiences. Though they try to come to conscious level, they are pushed back or avoided consciously. It is a kind of repression through which painful, threatening, and embarrassing memories are

held out of consciousness. As explained by Freud in his theory of psychoanalysis, the painful experiences and forbidden wishes are pushed into the unconscious, and the individual does not want to remember them. The repressive forgetting theory suggests people forget because they push unpleasant thoughts and feelings deep into their unconscious. Thus, we forget those memories, which we do not want to remember.

- **Ineffective Encoding:** The inability to remember information may sometimes have less to do with forgetting and more to do with the fact that it never made its way into long-term memory. This type of forgetting is caused because the person did not pay attention in the first place. Encoding failure or ineffective coding may prevent information from entering long-term memory, and thus, the information never being stored to be able to be retrieved at a later date. This may happen when you meet someone and later you cannot remember his or her name. This is probably because you were preoccupied when you were introduced, and the name never made it to long term memory. Another example of ineffective coding can also be exhibited by trying to draw the back of a dime from memory. Chances are you probably remember the shape and color, but probably could not draw many of the details even though you have seen hundreds of dimes over the course of your life. The reason for this is that only details necessary for distinguishing dimes from other coins were encoded into your long-term memory.
- **Gestalt Theory of Forgetting:** Gestalt theory explains forgetting in terms of perception. It explains that memory depends on the tendency to perceive the object as a whole. “The perception of the whole dominates the perception of parts and makes them conform as far as possible to the configuration of the whole.” It is proven by experiments in which the subject is shown some irregular figures, and then he is required to draw it from memory. The results shows that reproduced figures differ to some extent from the original figure, and the modification made by the subject can be explained as an

attempt at leveling, sharpening of some part, or normalizing it to some familiar shape on the basis of perception.

- **Theory of Stress:** Forgetfulness or loss of memory under stress and high anxiety is not uncommon. Many hard working and ambitious students aspire for high scores in final examinations and to achieve such ends they put in long hours in studies. However, when they receive the question paper, they become extremely nervous and forget everything they had prepared well.
- **Lack of Organization:** Another explanation of forgetting is that it is due to lack of organization and systematization of learned material. It is observed that people who are good at recollection are generally very systematic in their habit, and those who are quick to forget, are those who adopt incoherent and confusing ways of doing things.

  Thus, we can conclude that forgetting requires more than one explanation. It may be due to blocking of original learning by interpolated learning, absence of proper habit to organize learning materials, change of stimuli conditions, or unconscious motives etc.



ACTIVITY 8.1

a) Request your friend to learn two separate lists of nonsense syllables (list A and list B) one after the other, and after a while, ask her/him to recall the nonsense syllables of list A. While trying to recall the items of list A, s/he recalls some of the items of list B. Why?

b) You could not remember the name of an actor in a movie, but his name suddenly pops in your mind by seeing a clip from the movie. Which theory of forgetting is the explanation of this situation?

c) A student does not want to remember the name of a teacher who has severely “punished him in his school days”. Which theory of forgetting is the explanation of this situation?



CHECK YOUR PROGRESS

Q.6: Define the term 'forgetting'.

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Q.7: What are the different causes of forgetting?

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8.8 LET US SUM UP

- Memory is popularly defined as the power of reproduction or recollection of past events.
- It is the recall of an old personal experience, which had temporarily dropped from our consciousness. Psychologists have classified memory into certain types on the basis of their nature and functions.
- These are habit memory and true or image memory, immediate memory and permanent memory, logical memory and rote memory, sensory memory, associated memory, active memory and passive memory, short-term memory and long-term memory.
- Forgetting is a psychological phenomenon. It is the failure to recall past experiences, and is generally taken as a mark of poor memory.
- There are several theories that address why we forget memories and information over time including trace decay theory, interference theory, ineffective encoding, cue-dependent forgetting and gestalt theory of forgetting.



8.9 FURTHER READING

1) Agarwala, J. C. (1996). *Essentials of Educational Psychology*. New Delhi: Vikash Publishing House.

2) Bhatia, B. D., & Safaya, R. N. (2000). *Educational Psychology and Guidance*. New Delhi: Dhanpat Rai & Sons.

3) Dandekar, W. N. (2002). *Psychological Foundation of Education*. Macmillan India Ltd.

4) Mangal, S. K. (1990). *Advance Educational Psychology*. Ludhiana: Prakash Brothers.



8.10 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: The process of memorization starts with learning or experiencing something. It ends with its revival and reproduction of past events. Thus, memory is a great mental capacity. It is needed for mastering the cognitive competencies, solving different problems of our life as well as in making social relationships.

Some of the characteristics of memory are:

- Memory consists of the recollection of previous experiences.
- Memory is a mental process, which consists in learning, retaining, and remembering.
- Memory is determined by the retaining power of the individual.
- Memory is an active process of our mind. It is not passive.
- Ancient psychologists explained memory as a mental power. But, in modern times, memory is a mental process not a mental power.

Ans. to Q. No. 2: **(a)** Habit Memory, **(b)** Immediate memory, **(c)** Associative Memory, **(d)** Logical Memory, **(e)** True Memory

Ans. to Q. No. 3: **a) Rote Memory and Logical Memory:** Rote memory is verbal repetition, mechanically, of a material, it is somewhat similar to habit memory. Rote memory occurs without proper

understanding of the subject matter; for example, learning multiplication tables by young students. But logical memory involves proper understanding of the learnt material. It does not depend on mere physical repetition.

b) **Immediate Memory and Permanent Memory:** When a learnt material is reproduced or recalled soon after learning it, it is called immediate memory. The time between learning a material and reproducing it is very less. But after a long time most of the learnt material is forgotten. But the ability to remember something even after a long period of time from learning it, is called permanent memory. Permanent memory is the best form of memory.

Ans. to Q. No. 4: Motivation, interest, rest, emotion, association, will to learn, good health etc. are some of the conditions that help to improve remembering**.**

Ans. to Q. No. 5: Recitation, periodic review, over learning, learning by doing, whole versus part learning, spaced learning are some economic methods of memorization or remembering.

Ans. to Q. No. 6: Forgetting means fading of impressions from the mind, or in other words, inability to remember something is forgetting. According to James Drever, "Forgetting means failure at anytime to recall an experience when attempting to do so, or to perform an action previously learned".

Ans. to Q. No. 7: The different causes of forgetting are lack of interest, old age, brain injury, lapse of time, lack of practice of learnt material, emotional condition, use of alcohol and drugs, retroactive inhibition and repression.



8.11 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q.1: What is memory? Give some definitions of memory

Q.2: Explain briefly two most important factors of memory.

Q.3: Explain the process involved in memorization. Mention some characteristics of memory.

Q.4: Describe two economic methods of memory.

Q.5: Is the rest necessary to remember? If so, why?

Q.6: What is forgetting? Mention its characteristics.

Q.7: Explain the term 'interference'. How does it affect forgetting?

Q.8: Explain the following statements:

a) Forgetting is a blessing.

b) Forgetting is a defense mechanism

B) Long Questions (Answer each question in about 300-500 words)

Q.1: What do you mean by memory? Discuss the factors of memory.

Q.2: Describe the different types of memory. How can memory be improved?

Q.3: Why do we forget? Discuss some of the causes of forgetting by giving suitable examples.

Q.4: What is forgetting? Describe the different theories of forgetting. Discuss the different types of memory.

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UNIT 9: MEANING AND NATURE OF REASONING AND PROBLEM SOLVING

UNIT STRUCTURE

9.1 Learning Objectives

9.2 Introduction

9.3 Meaning of Reasoning

9.4 Definitions of Reasoning

9.5 Characteristics of Reasoning

9.6 Types of Reasoning

9.7 Meaning of Problem Solving

9.8 Approaches to Problem Solving

9.9 The Problem-Solving Cycle

9.10 Factors Affecting Problem Solving

9.11 Strategies for Effective Problem Solving

9.12 Principles for Teaching Problem Solving

9.13 Let Us Sum Up

9.14 Further Reading

9.15 Answer to Check Your Progress

9.16 Possible Questions

9.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- define the meaning of reasoning;
- identify the characteristics of reasoning;
- discuss the various types of reasoning;
- explain the meaning and nature of problem solving;
- enumerate the principles of teaching problem solving; and
- explain the different problem solving strategies.

9.2 INTRODUCTION

"Intellectuals solve problems; geniuses prevent them."

–Albert Einstein.

Everyday problem solving involves examining the solutions that individuals generate when faced with problems that take place in their everyday life. The skills for problem solving are very important in every human's life. The major part of our lives is spent solving problems. Problem solving therefore involves reflection, induction, deduction, and even creation. Reasoning, which is an important aspect of cognition, plays a significant role in the complex phenomena involving one's cognitive abilities.

9.3 MEANING OF REASONING

Reasoning is a process by which we attain a belief, which we regard as the result of a previous knowledge. It is the cognitive process of looking for reasons, beliefs, conclusions, actions, or feelings. We, human beings, use reason at almost every moment of our life. In our life, we try to guess the consequences of our actions, deduce as much as we can from our perceptions and logic. Reasoning helps us to survive, especially in the present world, which is more dynamic and fast, with more information to process at a time as never before. Reasoning is the main factor helping the mankind to move forward.

Reasoning essentially involves thinking. One may come across some commands given by teachers such as 'just scratch your brain to find solution to this problem to this problem' or, 'just concentrate on the problem, apply your mind' etc. So, while reasoning, one has to explore deep into the mind's regions, do mental acts, interpret symbols, or make use of language. It is education which transforms "reasoning savage" into a "reasoning human being.' It involves a conscious effort to make sense of a thing or a relationship between things, normally with reference to an agreed convention on certain axiomatic or a priori assumptions. Some people would argue that it is a linguistic convention in itself, in that it applies to communication between people which is intended to lead to agreement or understanding of an object, statement or person. Reasoning is broadly defined as the process of drawing conclusions. It is related to Psychology, Philosophy, Linguistics, Cognitive science, Logic, Probability theory and Artificial Intelligence.

It is one of the best forms of controlled thinking towards the solutions of a problem. It is realistic in the sense that the solution is sought always with reference to the reality of the situation. Reasoning is used not only when we want to solve an immediate problem but also when we anticipate future problems. Reasoning plays a significant role in one's adjustment to the environment. It not only determines one's cognitive activities, but also influences one's behaviour and personality. Reasoning is a highly specialized thinking which helps an individual to mentally explore the cause and effect relationship of an event or solution of a problem by adopting some well-organized and systematic steps based on previous experience combined with present observation.

9.4 DEFINITIONS OF REASONING

Experts have defined reasoning in different ways. Some of them are mentioned below:

Garret (1948) defined reasoning as "Step-wise thinking with a purpose or goal in mind."

According to Munn (1967), "Reasoning is combining past experiences in order to solve a problem which can be solved by mere reproduction of earlier solutions."

Skinner (1968) defined reasoning as a process which describes the mental recognition of cause and effect relationships. It may be the prediction of an event from an observed cause or the inference of a cause from an observed event.

As Sherman defined, "Reasoning is a process of thinking during which the individual is aware of a problem identifies, evaluates, and decides upon a solution."

According to James Drever (1968), "Reasoning is a process of thinking involving inference, or of solving problems by employing general principles."

9.5 CHARACTERISTICS OF REASONING

The characteristics of reasoning are listed below:

- All reasoning has a purpose.

- All reasoning is an attempt to figure something out, to settle some questions, to solve some problems.
- All reasoning is based on assumptions.
- All reasoning is done from some point of view.
- All reasoning is based on data, information, and evidence.
- All reasoning is expressed through, and shaped by, concepts and ideas.
- All reasoning contains inferences by which we draw conclusions and give meaning to data.
- All reasoning leads to somewhere, has implications and consequences.
- Reasoning is organized. It is systematic and purposeful. It concentrates on fundamentals and makes pertinent associations.
- Reason is man's tool of understanding. It is the method of identifying entities through one's senses. It is the means of integrating those perceptions into concepts, gaining knowledge through this integration that knowledge into the rest of one's knowledge, and evaluating and manipulating ideas and facts.

9.6 TYPES OF REASONING

The main types of reasoning are as mentioned below: (a) Deductive, (b) Inductive, (c) Abduction, (d) Reductive Reasoning, (e) Fallacious Reasoning, (f) Analogical reasoning.

- **Deductive Reasoning:** The theory of deductive reasoning was set by Aristotle. Deduction means determining the conclusion. It is the form of reasoning in which the conclusion follows logically and coherently from the factual premises and proposition. These deductive arguments are based upon the concept of sound and consistent reasoning. If the premises are true, then the systematic reasoning with a constructed syllogism is considered valid in a deductive argument in making its conclusion certain with a degree of logical certainty. Plainly speaking, deductive reasoning is the rationality of reasoning from pure logic. It is considered sound and pure logic.

Deductive reasoning is a basic form of valid reasoning. Deductive reasoning starts out with a general statement, or hypothesis, and examines the possibilities to reach a specific, logical conclusion. The scientific method uses deduction to test hypotheses and theories. In deductive inference, we hold a theory, and based on it, we make a prediction of its consequences. That is, we predict what the observations should be if the theory were correct.

For example, “All animals are mortal (Major Premise). Tiger is an animal (Minor Premise). Therefore, tiger will die (Conclusion).” For deductive reasoning to be sound, the hypothesis must be correct. It is assumed that the premises, “All animals are mortal” and “Tiger is an animal” are true. Therefore, the conclusion is logical and true. In deductive reasoning, if something is true of a class of things in general, it is also true for all members of that class.

According to the University of California, deductive inference conclusions are certain provided the premises are true. It is possible to come to a logical conclusion even if the generalization is not true. If the generalization is wrong, the conclusion may be logical, but it may also be untrue. For example, the argument, “All bald men are grandfathers. He is bald. Therefore, he is a grandfather,” is valid logically, but it is untrue because the original statement is false. The deductive statement is a perfectly logical statement, but does rely upon the initial premise being correct. Deductive reasoning is then used to construct a logical and rigorous proof.

Deductive reasoning is considered by many to be the standard for scientific research. Using this method, one begins with theory and hypotheses, and then conducts research in order to test whether the theories and hypotheses can be proven true with specific cases. As such, this form of research begins at a general, abstract level, and then works its way down to a more specific and concrete level. With this form of reasoning, if something is found to be true for a category of things, then it is considered to be true for all things in that category in general.

- **Inductive Reasoning:** Inductive methodologies as part of the scientific inquiry was established and popularized by Francis Bacon's "Novum Organum". Inductive reasoning is the opposite of deductive reasoning. Inductive reasoning makes broad generalizations from specific observations. Basically, there is data, and then conclusions are drawn from the data. This is called inductive logic, according to Utah State University. Induction means determining the rule. It is learning the rule after numerous examples of the conclusion following the precondition. Example: "The grass has been wet every time it has rained. Thus, when it rains, the grass gets wet." Scientists are commonly associated with this style of reasoning.

  "In inductive inference, we go from the specific to the general. We make many observations, discern a pattern, make a generalization, and infer an explanation or a theory. An example of inductive logic is, "The coin I pulled from the bag is a penny. That coin is a penny. A third coin from the bag is a penny. Therefore, all the coins in the bag are pennies."

  Even if all of the premises are true in a statement, inductive reasoning allows for the conclusion to be false. Here's an example: "Madan is a grandfather. Madan is bald. Therefore, all grandfathers are bald." The conclusion does not follow logically from the statements.

  Inductive reasoning has its place in the scientific method. Scientists use it to form hypotheses and theories. Deductive reasoning allows them to apply the theories to specific situations.

  Inductive Reasoning is a form of reasoning that uses analogies, examples, observations and experiences to form conclusive propositions. Inductive logic also uses experiences to formulate statements based on general observations of the recurring patterns in nature, science, and everyday occurrences pulling from such things samples, cases, experiments and natural eye observations. It is used mostly to explain the properties and relations to objects or types based on previous observations. It must be understood that

inductive arguments do not try to establish their conclusions through absolute certainty, but through observable and predictive certainty.

In addition, Analogical Reasoning and Matrix Reasoning are both the sub-methods of inductive reasoning that correlates information and that compares the similarities between new and understood thoughts. And then, it uses the similarities to gain an understanding of the new concepts. These two forms of reasoning are considered both inductive reasoning because it strives to provide understanding of what is perceived to be true, rather than deductively proving something as fact.

Inductive reasoning begins with specific observations or real examples of events, trends, or social processes, and progresses analytically to broader generalizations and theories based on those observed cases. This is sometimes called a "bottom up" approach because it starts with specific cases on the ground and works its way up to the abstract level of theory. With this method, once a researcher has identified patterns and trends amongst a set of data, he or she can then formulate some hypotheses to test, and finally, develop some general conclusions or theories.

- **Abductive Reasoning:** Abduction was first coined by Charles Sanders Peirce as 'process of thought capable of producing no conclusion more definite than a conjecture'. It is the process of explaining something that is experienced or observed in some way and where there is no existing knowledge to explain the phenomenon. In a laymen's term, abductive reasoning is an argument to the best explanations. It is a form of reasoning that can be concluded in an abductive argument of what is plausible or most possibly true. Abduction means determining the precondition. It is using the conclusion and the rule to assume that the precondition could explain the conclusion. For example, "When it rains, the grass gets wet. The grass is wet, it must have rained." Abductive reasoning usually starts with an incomplete set of observations and proceeds to the likeliest possible explanation for the group of observations. It

is based on making and testing hypotheses using the best information available. Abductive reasoning is useful for forming hypotheses to be tested.

- **Reductive Reasoning:** Reductive Reasoning is a subset of argumentative reasoning which seeks to demonstrate that a statement is true by showing that a false or absurd result/ circumstance follow from its denial. It is proving a statement true by reducing to the opposite of it, and showing the absurdity of the opposite result. Reductive Reasoning is also considered a mixture of deductive and inductive reasoning. Inductive because it strives to provide understanding of what is likely to be true; and deductive because it does resemble traits of critically and rationally of deductively reducing down to a conclusive or non-conclusive argument.
- **Fallacious Reasoning:** Fallacious Reasoning is not real reasoning; it is the faulty premises for critical thinking and logic. One of the tall tale signs of fallacious reasoning is a logical fallacy. A fallacy is usually an error in reasoning and argumentation often due to a misconception, false premises, or presumptuous conclusions.
- **Analogical Reasoning:** Analogical reasoning is suggested as a useful new mechanism for the manipulation and derivation of some kinds of deep knowledge. The starting-point for the suggestion is the observation that the experts often express parts of their non-shallow knowledge in terms of cases, and reason by trying to identify relevant similarities between past cases and the current problem.

  In analogical reasoning, an analogy for a given thing or situation is found, where the analogy is like the given thing in some way. In the everyday life, we face analogy when we are compared to someone else, or if we compare something to another thing. For e.g., “You are just like your father, always sitting in front of the television.” or “This is like I am in the heaven.”



CHECK YOUR PROGRESS

Q.1: What do you mean by Reasoning?

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Q.2: Mention the different types of Reasoning.

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Q.3: Write some characteristics of Reasoning.

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9.7 MEANING OF PROBLEM SOLVING

Problem-solving is a mental process that involves discovering, analyzing, and solving problems. It is closely related to learning. It is a specific and complicated form of classical condition. This is known as a creative form of learning. The ultimate goal of problem-solving is to overcome the obstacles and find a solution that best resolves the issue. A problem arises when we need to overcome some obstacles in order to get to a desired state from our current state. Problem solving is the process that an organism implements in order to try to get from the current state to the desired state.

The Concise Oxford Dictionary (1995) defines a problem as: “A doubtful or difficult matter requiring a solution” and “Something hard to understand or accomplish or deal with.” Problem-solving can be defined as a mental process comprising the discovery, analysis and resolution of problems. This process is primarily aimed at tackling obstacles and discovering a resolution that best solves the issue.

According to J. R. Anderson, any goal-directed sequence of cognitive operations can be defined as problem solving.

According to Eysenck and his associates (1972), problem solving is that process, in which, starting from cognitive situation, the desired goal is achieved.

D. M. Johnson (1972) describes six problems related to problem solving which are as follows:

a) Behaviour is goal directed and continuity is found in behaviour.
b) The continuity in behaviour and actions ends when the aim is achieved.
c) Individual gives various types of responses and trials in problem solving.
d) People of one sect respond to the problem situation in different manner, therefore individual differences are found in problem solving.
e) Organism takes more time when he faces the problem situation for the first time but the time of solving the problem decreases in his later trails for that situation.
f) Problem solving is a specific form of thinking.

In the field of Psychology, “problem solving” refers to a way of reaching a goal from a present condition, where the present condition is either not directly moving toward the goal, is far from it, or it needs more complex logic in order to find the steps toward the goal. It is considered the most complex of all intellectual functions, since it is a higher-order cognitive process that requires the modulation and control of basic skills.

In Cognitive Psychology, the term problem solving refers to the mental process that people go through to discover, analyze, and solve problems. This involves all of the steps in the problem process, including the discovery of the problem, the decision to tackle the issue, understanding the problem, researching the available options, and taking actions to achieve your goals.

Before problem-solving can occur, it is important to first understand the exact nature of the problem itself. If your understanding of the issue is faulty, your attempts to resolve it will also be incorrect or flawed. There are a number of mental processes at work during problem-solving. These include:

- Perceptually recognizing a problem.
- Representing the problem in memory.

- Considering relevant information that applies to the current problem.
- Identifying different aspects of the problem.
- Labeling and describing the problem.

9.8 APPROACHES TO PROBLEM SOLVING

- **The Behaviourist Approach:** Behaviourist researchers argued that problem solving was a *reproductive* process; that is, organisms faced with a problem of applied behaviour that had been successful on a previous occasion. Successful behaviour was itself believed to have been arrived at through a process of trial-and-error. In 1911, Edward Thorndike had developed his law of effect after observing cats discover how to escape from the cage into which he had been placed. This greatly influenced the behaviourist view of problem solving.
- **The Gestalt Approach:** In contrast, Gestalt psychologists argued that problem solving was a *productive* process. In particular, in the process of thinking about a problem, individuals sometimes "restructured" their representation of the problem, leading to a flash of insight that enabled them to reach a solution.

  In 1972, Allen Newell and Herbert Simon published the book *Human Problem Solving*, in which they outlined their *problem space theory* of problem solving. In this theory, people solve problems by searching in a *problem space*. The problem space consists of the initial (current) state, the goal state, and all possible states in between. The actions that people take in order to move from one state to another are known as *operators*.

  However, for novel problems, Newell and Simon proposed that operator selection is guided by cognitive short-cuts, known as Heuristics. The simplest heuristic is *repeat-state avoidance* or *backup avoidance*, whereby individuals prefer not to take an action that would take them back to a previous problem state. This is unhelpful when a person has taken an inappropriate action, and actually needs to go back a step or more.

Under the influence of cognitive learning theories, problem solving is shifted to represent a complex mental activity consisting of a variety of cognitive skills and actions. Problem solving included higher order thinking skills such as "visualization, association, abstraction, comprehension, manipulation, reasoning, analysis, synthesis, generalization– each needing to be 'managed' and 'coordinated'" (Garofalo & Lester, 1985, p. 169).

- **General Problem Solving Models of the 1960's:** During the 1960s and 70s, researchers developed general problem solving models to explain the problem solving processes (Newell & Simon, 1972; Polya, 1957; Bransford & Stein, 1984). The assumption was made that by learning abstract (decontextualized) problem solving skills, one could transfer these skills to any situation (context). One example of this general problem-solving model is Bransford's IDEAL model:
  - Identify the problem.
  - Define the problem through thinking about it and sorting out the relevant information.
  - Explore solutions through looking at alternatives, involving in brainstorming, and checking out different points of view.
  - Act on the strategies.
  - Look back and evaluate the effects of your activity.

9.9 THE PROBLEM-SOLVING CYCLE

In order to solve a problem, it is important to follow a few steps, which have also been referred to as the 'Problem-Solving Cycle'. These are stated below:

- **Problem Identification:** First, a problem should be identified and defined. There are many questions to ask– such as what makes one think that there is a problem? Where is it happening? How is it happening? When is it happening? With whom is it happening? Why is it happening?
- **Problem Definition and Representation:** After the problem has been identified, the next step is to appropriately and fully define the problem so that it can be solved.

- **Strategy Formulation:** The next step is to form a strategy to solve the problem. The chosen strategy will depend on the nature of the problem, the situation and the individual characteristics of the problem-solver. It is always suitable to look for alternative ways for a solution.
- **Organization of Information:** When choosing the best strategy, problem-solvers may need to consider a number of factors– long term benefit, realistic, availability of resources, risks involved, etc.
- **Resource Allocation:** Before problem solving begins, it is important to decide how high in the priority list the problem is, so that appropriate amount of resources can be allocated to it.
- **Monitoring:** Monitoring the progress while working towards a solution is important, as the strategies and approaches employed presently can be reevaluated if a good progress is not being made in the problem solving process.
- **Evaluation:** At this final stage of the problem-solving cycle, when a solution is reached, problem-solvers should assess what has been accomplished and decide whether they have come to the best possible solution to a given problem.

9.10 FACTORS AFFECTING PROBLEM SOLVING

Problems emerge from internal and external causes, and their solution is influenced by some factors, as you can find in the following:

- **Knowledge:** Knowledge of the full variety of tactical steps in solving a problem influences the ways and pace of problem solving. If the person knows and understands how to solve the problem, he can solve it properly and in less time compared to the person who does not have knowledge of the same.
- **Experience:** If a person has the experience of solving a problem in the past, it is obvious that in the present situation, he will be able to solve the same kind of problem more effectively.
- **Problem difficulty:** Existing factors in the problems can also constrain problem solving. All problems are not of the same difficulty

level. The difficulty level of the problem is another factor affecting problem solving.

- **Structure of problem:** The structure of the problem—whether well-structured or ill-structured, also influences problem solving.
- **Transfer of learning:** In case of solving a problem, if we apply right learning in right place, then the attainment of solution becomes easy. Inability of transferring learning hampers problem solving.
- **Intelligence of problem solver:** Intelligence is the aggregate general potentiality of an individual to think and act rationally. A genius will solve a problem more precisely in less time than an average student.
- **Other Mental dispositions:** Research studies have proved that mental dispositions like attention, interest, logical understanding influence problem solving behaviour.
- **Motivation:** Motivation is the cause for which we wish to solve a problem. Until and unless we feel motivated, trials for finding a solution will continue. In the absence of motivation, problem solving may not be possible.
- **Creativity:** Problem solving calls for creativity. It calls for the generation of ideas that are novel (at least for the individual). Creative people can look into the issues from diverse point of view.
- **Memory:** We engage in problem solving when we need to overcome obstacles in order to answer a question or to achieve a goal. If we can quickly retrieve an answer from memory, we can solve a problem. If we cannot retrieve an immediate answer, then finding solution becomes difficult.
- **Social factors:** Social factors like leadership factors, egocentrism, accountability, and social collaboration play important role in solving problems in group situation.

9.11 STRATEGIES FOR EFFECTIVE PROBLEM SOLVING

A strategy can be understood as a plan, a heuristic, a rule of thumb, a possible way to approach the solving of some type of problem. Some

strategies may be adopted for effective problem solving. Every problem-solving domain has its own strategies. There are relatively few strategies that are powerful and applicable across all domains. For example, **breaking a big problem into smaller problems** is one of these general purpose strategies and doing library research is another general purpose strategy. Each subject matter (each domain) has its own set of problem solving strategies. The typical person has few explicit strategies in any particular area. Different strategies for effective problem solving are:

- Problem solving is a creative process, and we can distinguish three main sorts of strategies for solving problem effectively (Johnson-Laird, 1993).
  - ***Neo-Darwinian algorithm*** that consists of a stage in which ideas are generated and then they are evaluated. Generation and evaluation depends on the use of knowledge. Any idea that survives can be recycled and repeated till getting a solution.
  - ***Neo-Lamarckian algorithm***, in which all knowledge acquired from experience constrains the generation of ideas. If alternatives are created, then the choice amongst them can be made. When individuals have the requisite knowledge, the algorithm is highly efficient, because there is no need for repetition.
  - ***Multi-stage algorithm***, in which some knowledge are used to constrain the creation of ideas and some are used to evaluate the results, with the option of repetition. In sum, according to this account, constraints govern the evaluation of ideas, or their generation, or both.
- Behaviorist psychologists suggest that problems can be solved by trial and error, and reproducing past responses. In trial and error, first we make random movements to solve a problem. Consequently, the error rate decreases and we attain a solution.
- Cognitive psychologists believe that problem-solving strategy involves a series of mental processes and is not random. Problem solving strategy involves mentally working to overcome obstacles that stand in the way of reaching a goal.

- Another strategy is shaping of problem. Here, individuals shape problems depending on their experience. As they try out the various possible tactical steps, they learn their consequences.
- One can solve a problem by bringing change in the environment, for example in a puzzle game, removing a new piece, replacing a piece removed earlier, or moving a piece from one position in the shape to fill the position of a piece that had been removed.
- Using new strategy or developing novel idea is another strategy, which is useful when past strategies do not work with a new problem. A greater use of the exploratory stage of strategies is helpful in this regard.
- Problem solving calls for creativity, because it calls for the generation of ideas that are novel (at least for the individual).
- In general, the problem solving strategy involves cognitive action like identifying the problem, planning the solution, execute the plan, evaluate the plan and evaluate the solution (Hayes, 1998).
- Problem solving strategies include representation of the problem in one's mind. There are many different ways to represent a problem. A problem can be represented mentally or orally.
- Breaking big problem into smaller ones is called the top-down strategy. The idea is that it may be far easier to deal with a number of small problems than it is to deal with one large problem.
- Another pair of strategies involve divergent and convergent thinking. Once we have considered a variety of possibilities through divergent thinking, we must engage in convergent thinking, to narrow down the multiple possibilities to converge on a single best answer, which we will try first.
- Another strategy of problem solving is abstraction. It involves solving the problem in the model of the system before applying it to the real system.
- Analogy can also be used for problem solving. It refers to using a solution for a similar problem.
- Brainstorming can also be used as a strategy for problem solving. In this strategy, a large number of spontaneous solutions are identified and developed until the best is found.

- Problems may also be solved through root-cause analysis. It means identifying the cause of a problem.

There is no single ideal strategy for addressing every problem. Instead, the optimal strategy depends on both the problem and the problem-solvers personal. There are many other ways of solving a problem. The most effective depends on the type of problem and the resources at hand.

9.12 PRINCIPLES FOR TEACHING PROBLEM SOLVING

Understanding problem solving as a process involving a state of desire for reaching a goal from a condition that is far from it leads to a number of important principles for teaching problem solving. These are:

- For any "real-world" job or work skill, identify both the declarative and procedural knowledge components. Give each appropriate instructional emphasis.
- First introduce a problem solving context, then either alternate between teaching declarative and procedural knowledge, or integrate the two.
- When teaching declarative knowledge, emphasize mental models appropriate to the problem solving by explaining knowledge structures and asking the learners to predict what will happen or explaining why something happened.
- Teach problem solving skills in the context in which they will be used. Use authentic problems in explanations, practice and assessments, with scenario-based simulations, games and projects.
- Use direct (deductive) teaching strategies for declarative knowledge and well structured problem solving.
- Use inductive teaching strategies to encourage synthesis of mental models and for moderately and ill-structured problem solving.
- Within a problem exercise, help the learners understand (or define) the goal, then help them to break it down into intermediate goals.
- Ask questions and make suggestions about the strategy to encourage the learners to reflect on the problem solving strategies they use.

- Give practice of similar problem solving strategies across multiple contexts to encourage generalization.
- Use contexts, problems and teaching styles which will build interest, motivation, confidence, persistence and knowledge about the self, and reduce anxiety.
- When teaching well-structured problem solving, allow the learners to retrieve it (e.g., from a reference card). If the procedure is frequently used, encourage memorization of the procedure and practice until it is automatic.
- When teaching moderately-structured problem solving, encourage the learners to use their declarative (context) knowledge to invent a strategy which suits the context and the problem.
- When teaching ill-structured problem solving, encourage the learners to use their declarative (context) knowledge to define the goal (properties of an acceptable solution), then invent a solution.



CHECK YOUR PROGRESS

Q.4: What do you mean by problem solving?

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Q.5: What is strategy?

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Q.6: Mention some strategies of problem solving.

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9.13 LET US SUM UP

- Reasoning is a cognitive process.
- Reasoning is a highly specialized thinking which helps an individual to mentally explore the cause and effect relationship of an event or

solution of a problem by adopting some well-organized systematic steps based on previous experience combined with present observation.

- All reasoning has a purpose. All reasoning is based on assumptions. The main types of reasoning are– deductive, inductive, abduction, reductive reasoning, fallacious reasoning and analogical reasoning.
- The theory of deductive reasoning was set by Aristotle. Deductive reasoning is the form of reasoning in which the conclusion follows logically and coherently from the factual premises and proposition.
- Inductive reasoning was popularized by the Francis Bacon's Novum Organum. It is the opposite of deductive reasoning. Inductive reasoning makes broad generalizations from specific observations.
- Abductive reasoning is the process of explaining something that is experienced or observed in some way, and where there is no existing knowledge to explain the phenomenon.
- Reductive reasoning is a subset of argumentative reasoning which seeks to demonstrate that a statement is true by showing that a false or absurd result/ circumstance follow from its denial.
- Fallacious Reasoning is not real reasoning. It is the faulty premises for critical thinking and logic.
- Analogical reasoning is suggested as a useful new mechanism for the manipulation and derivation of some kinds of deep knowledge.
- In order to solve a problem correctly, it is important to follow a few steps, which have also been referred to as the 'Problem-Solving Cycle'. This cycle includes some basic steps that can be followed in order to solve a problem. These are stated in below:
  - Problem Identification
  - Problem Definition and Representation
  - Strategy Formulation
  - Organization of Information
  - Resource Allocation
  - Monitoring
  - Evaluation

- Various factors influence problem solving– knowledge, experience, problem difficulty, structure of problem, transfer of learning, intelligence of the problem solver, motivation, creativity, memory, social factors and communication.
- Teaching of problem solving is based on certain principles which include giving instructional emphasis on both declarative and procedural knowledge components, emphasizing problem solving context, emphasizing mental models appropriate to the problem solving, helping learners to understand (or define) the goal, encouraging practice, etc.



9.14 FURTHER READING

1) Carlson, E. R. (1995). Evaluating the credibility of sources. A missing link in the teaching of critical thinking. *Teaching of Psychology*, 22(1), 39-41.
2) Facione, P. A., Sanchez, C. A., Facione, N. C., & Gainen, J. (1995). The disposition toward critical thinking. *The Journal of General Education*, 44(1), 1-25.
3) Halpern, D. F., & Nummedal, S. G. (1995). Closing thoughts about helping students improve how they think. *Teaching of Psychology*, 22(1), 82-83.
4) Mangal, S. K. (2007). *Advanced Educational Psychology*. New Delhi: Prentice-Hall of India.
5) Morgan, C. T. (1961). *Introduction to Psychology*. New York: McGraw-Hill.



9.15 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Reasoning is broadly defined as the process of drawing conclusions.

Ans. to Q. No. 2: The types of reasoning are– deductive, inductive, abduction, reductive, fallacious and analogical.

Ans. to Q. No. 3: Some characteristics of reasoning are–

i) All reasoning has a purpose.

ii) All reasoning is an attempt to figure something out, to settle some question, to solve some problem.

iii) All reasoning is based on assumptions.

Ans. to Q. No. 4: Problem-solving is a cognitive process that involves discovering, analyzing, and solving problems.

Ans. to Q. No. 5: A strategy can be thought of as a plan, a heuristic, a rule of thumb, a possible way to approach the solving of some type of problem.

Ans. to Q. No. 6: There are many strategies of solving a problem like abstraction, brainstorming, breaking down a large and complex problem into smaller, solvable problems.



9.16 POSSIBLE QUESTIONS

A) Very Short Questions (Answer each question in about 50 words)

Q.1: Who defined reasoning as “Step-wise thinking with a purpose or goal in mind.”?

Q.2: Who set the theory of deductive reasoning?

B) Short Questions (Answer each question in about 150 words)

Q.1: What is fallacious reasoning?

Q.2: Define problem solving.

Q.3: What do you mean by IDEAL Model?

Q.4: Mention two factors of problem solving.

B) Long Questions (Answer each question in about 300-500 words)

Q.1: Discuss the types of reasoning.

Q.2: Explain the nature of problematic situation.

Q.3: Write a note on problem solving cycle.

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UNIT 10: PERSONALITY

UNIT STRUCTURE

10.1 Learning Objectives

10.2 Introduction

10.3 Concept of Personality

10.3.1 Definitions of Personality

10.3.2 Characteristics of Personality

10.4 Theories of Personality

10.5 Measurement of Personality

10.6 Personality Adjustment

10.7 Defense Mechanism

10.8 Let Us Sum Up

10.9 Further Reading

10.10 Answers to Check Your Progress

10.11 Possible Questions

10.1 LEARNING OBJECTIVES

After going through this unit, you will able to–

- explain the concept, definition and characteristics of personality;
- discuss the theories of personality; and
- explain the different methods of measurement of personality.

10.2 INTRODUCTION

Personality is the most fascinating topic in the field of psychology. Many researches have been conducted on this topic, but no conclusion has been drawn with regard to the nature of personality. In simple language, by personality we mean the totality of everything about an individual—his emotional, ethical, mental, physical, social, and spiritual make-up. It includes an individual's appearance, emotionality, sociability, intelligence, character, and moral traits. In fact, personality is the mirror or one's total behaviour. A person's behaviour inevitably influences his personality. Personality has its

existence, which is like that of a sound. We can hear a sound, but can neither see nor touch it. Similarly, we cannot touch, see and hear personality. We can only understand it. Personality is dynamic and its dynamism can be noted only in society. Personality is very important in our social behaviour and because of this importance; a common man describes it in two words-attractive and repulsive. However, in psychology, the word personality means a lot. Each person has own peculiarities. Because of these peculiarities, he shows specific behaviour in different situations. This behaviour is intimately related to his personality. In fact, this behaviour is the mirror of his personality.

10.3 CONCEPT OF PERSONALITY

To arrive at a meaning of the word personality, we have to trace the historical root of the word. The word 'Personality' has been derived from the Latin word 'Persona', which means 'to sound through'. The term was used to describe the voice of an actor speaking through a mask. The word 'Persona' was associated with Greek theatre in ancient times. Persona meant a mask, which the Greek actors commonly used to wear on their faces when they worked on the stage. According to the concept of mask, personality was thought to be the effect and influence which the individual wearing a mask left on the audience. Even today, for the general people, personality means the effect, which an individual leaves on other people.

10.3.1 Definitions of Personality

The following are some of the definitions of personality:

- According to R. B. Cattell, "Personality is that which permits a prediction of what a person will do in given situation."
- J. P. Guildford stated, "An individual's personality is his unique pattern of traits."
- According to G.W. Allport, "Personality is the dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to the environment."
- According to Eysenck, "Personality is the more or less stable and enduring organization of a person's character, temperament,

intellect and physique, which determine his unique adjustment to the environment."

- Kart Lewin, considers personality to be "a dynamic totality of systems."
- According to Harman, "Personality is integrated organization of all pervasive characteristics of an individual as it manifests itself in focal distinctiveness to others."
- Fredenburgh said, "Personality is a stable system of complex characteristics by which the life pattern of the individual may be identified."
- Mark Sherman defined personality as, "The characteristic pattern of behaviours, cognitions and emotions which may be experienced by the individual and or manifest to others."

From these definitions, it may be said that personality is what makes an individual unique. Some people may have personality that is more impressive, some have less. Under personality come the social stimulus, values, traits of character, object of behaviour, mode of speech and other actions of a particular person. Personality is a dynamic and moving force. It consists of more than what we see on the surface.

10.3.2 Characteristics of Personality

The following are some characteristics of personality:

- Personality is something unique and specific. Every one of us is a unique person in oneself.
- Personality is not just a collection of so many traits or characteristics.
- Personality includes everything about a person.
- Every personality is the joint product of heredity and environment.
- Learning and acquisition of experiences contribute towards the growth and development of personality.
- The personality of an individual can be described as well as measured.

- It functions as a unified whole.
- Personality is self consciousness.
- Personality is what one is.
- Personality is dynamic and not static. With the change of environment, one's personality may undergo certain changes.



CHECK YOUR PROGRESS

Q.1: What do you mean by personality?

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Q.2: Give the definition of personality by Allport.

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10.4 THEORIES OF PERSONALITY

In order to understand the meaning and nature of personality properly, we should discuss the theories of personality. The theories of personality can be classified into the following broad categories–

a) Type Theory-Hippocrates, Kretschmer, Sheldon and Jung belong to type theory.

b) Trait Theory-Allport's Theory and Cattell's Theory of personality are based on the trait approach.

c) Psycho-analytical Theory-Freud, Adler, Horney, and Erickson's Theory may be included in this category.

d) Humanistic Theory-Carl Roger's Theory and Maslow's Theory belong to this category.

Now we shall discuss the various theories of personality in the following:

a) Type Theory of Personality: From the ancient times, the psychologists had tried to classify human being into different categories called types. The old system of typology continues, and

in the present times, psychologists have developed various typologies. Many scholars and psychologists tried to divide the people into types depending upon their own specific criteria. Three broad personality types have been usually referred to, they are–

- Body types based on the features of physique.
- Body chemistry based on the features of physiology.
- Psychological types based on the features of behaviour.

We will discuss some of the more common types of personality.

Hippocrate's classification: One of Aristotle's pupils Hippocrate theorized that the human body consists of four fluids– blood, yellow bile, phlegm (mucus) and black bile. The predominance of one of these four of fluids in one's body gives unique characteristics.

Table 10.1: Hippocrate's classification of Personality Types

Dominance of the fluid type in the body	Personality type	Temperamental Charcteristics
Blood	Sanguine	Light-hearted, optimistic, happy, hopeful and accommodating
Yellow bile	Chloeric	Irritable, angry but passionate, and strong with active imagination
Phelgm (mucus)	Phelgmatic	Cold, calm, slow, or sluggish and indifferent.
Black bile	Melancholic	Bad Tempered, dejected, sad, depressed, pessimistic, deplorable and self-involved.

Kretschemer's classification: German psychologist, Kretschmer classified human beings on the basis of physical constitution. He attempted to establish relationship between personality characteristics and body build.

Table 10.2: Kretschemer's classification of Personality Types

Personality types	Personality characteristics
Pyknic (having fat bodies)	Sociable, jolly, easy-going, and good natured
Athletic (Balanced body)	Energetic, optimistic, and adjustable
Leptosomatic (lean and thin)	Unsociable, reserved, shy, sensitive and pessimistic

Sheldon's classification: Sheldon classified human beings into three broad categories of physical dimensions and their corresponding temperamental characteristics. According to him, physical structure of the body is the determinant of personality characteristics.

Table 10.3: Sheldon's classification of Personality Types

Personality types	Somatic description	Personality characteristics
Endomorphic	Person having highly developed viscera but weak somatic structure	Easy-going, sociable and affectionate.
Mesomorphic	Balanced development of viscera and somatic structure.	Craving for muscular activity, self-assertive, loves risk and adventure
Ectomorhic	Weak somatic structure as well as undeveloped viscera.	Pessimistic, unsociable and reserved.

Spranger's classification: German philosopher, Spranger classified human beings on the basis of interests, they are as follows:

- Theoretical: Persons who are theoretical in nature, neglect social and political participation.
- Economic: Those persons who are interested in money hoarding.
- Aesthetic: Those persons who are the lovers of beauty and are busy in sensuous gratification.
- Social: Persons who are interested in social activities.

- Political: Persons who are dominating.
- Religious: Persons who devote themselves to religious activities.

Jung's classification: The Swiss psychiatrist, Jung classified human beings into two distinct types– Introvert and Extrovert. The introvert is generally shy and in times of emotional stress, he shows a preference for working alone rather than among people. The extrovert is sociable, like public dealings, well dressed and outgoing.

Limitations of Type Theory of Personality: The idea of dividing human beings into distinct categories goes against the general laws of individual difference. The types are discontinuous and immeasurable. It is not possible to place human beings in a specific category. Our general observation also proves that it is not fair to classify human personality on a specific category. Another criticism raised against type theory is that it creates misunderstanding between the cause and the effect. Placing a person in a specific category does not indicate his behaviour.

b) **Trait Theory of Personality:** A trait is a dimension of personality, which can be measured and must describe the consistent behaviour of an individual. Traits are relatively stable. They are not entirely static in nature. G. W. Allport, R. B. Cattle and Eysenck are the chief exponent of the trait theory of personality.

Allport's classification: Allport (1897-1967) was the first theorist who rejects personality types adopted the trait approach. According to him, traits are the basic units of personality. He classified traits into three categories: (i) cardinal traits (ii) central traits and (iii) secondary traits.

- Cardinal traits: These are dominant traits and are limited in number. They pervade the whole life of an individual. For example, if a person has simplicity as a cardinal trait, he will be simple in all thoughts and activities in every situation in life.
- Central traits: These traits are generalized dispositions which may be used to describe a Person's cooperation, honesty etc.

- Secondary traits: These traits are less dominant than central or cardinal traits. They are specific narrow traits and are not integral parts of one's personality.

According to Allport, traits differ in intensity and magnitude in general population from individual to individual. No two individuals are alike in their behaviour. The central point in Allport's theory is that patterned individuality constitutes the subject matter of a science of personality. Cardinal, central and secondary traits can be treated as personal dispositions in describing individual uniqueness. To him, traits have a real and vital existence. Allport gave a new dimension to the explanation of human behaviour, personality, evolution of the behaviour and aspects of personality by taking traits as the basic unit of behaviour.

Cattell's classification: R.B. Cattell is one of the propounders of trait theory of personality. According to him, a trait is structure of the personality inferred from behaviour in different situations. He classified traits into four categories.

- Common traits: These traits are widely distributed in general population or among all groups. Honesty, aggression, and cooperation can be called common traits.
- Unique traits: These traits are unique to a person, e.g., emotional reactions, temperamental traits.
- Surface traits: These traits are known from overt behaviour, such as curiosity, tactfulness. The method used for finding out surface traits is usually that of cluster analysis.
- Source traits: These are the underlying structures or sources, which determine the behaviour of an individual. Dominance and emotionality are source traits.

Cattell emphasized the importance of both hereditary and environmental factors in the development of individual traits. He used his sixteen factors in the measurement of personality by devising a personality inventory.

Eysenck's Classification: British psychologist Eysenck, tried to synthesize the type and trait approaches. He found three basic dimensions of personality– Introversion-Extroversion, Normality-Neuroticism, and Psychoticism-Realism.

- Eysenck believed that purely extrovert and introvert people were rarely found and he, therefore, preferred to use a dimension–a continuum ranging from introversion to extroversion instead of naming types as introverts and extroverts.
- At one end of the second dimension, are the persons who are stable, calm and carefree. At the other end, are the people who are moody, touchy, and anxious.
- At the end of the third dimension, psychoticism-realism, are those people who are unrealistic, solitary, insensitive, egocentric, impulsive etc. while the other end of the dimension includes people who are less adventurous and bold.

Limitations of Trait Theory of Personality: Psychologists have criticized trait theory of personality in different ways. Some of them are mentioned below.

- There is no agreement among the psychologists with regard to the use of the terms.
- There is a view that a trait is a behavioural disposition, which is consistent and does not vary from situation to situation.
- Individual's behaviour cannot be predicted on the basis of scores on trait inventory.



CHECK YOUR PROGRESS

Q.3: Name some psychologists related with type theory of personality.

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Q.4: Write the categories of traits given by Cattell.

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c) **Psycho-analytic theory of personality:** The psychoanalytic theory of personality was developed by Sigmund Freud (1856-1939). His theory of psychoanalysis is dynamic and based on the assumption that personality and personality development are determined by conflicts and events that are largely unconscious in nature. According to Freud, personality is a three-tier system of Id, Ego, and Super-ego. The Id is totally unconscious, Ego is partly conscious, and Super ego is totally conscious.

The Id is the primary aspect of personality. It cannot distinguish between good and evil. It is dominated by the pleasure principle. It is instinctive in nature. The Id consists of everything that is inherited psychologically.

The Ego follows the principle of reality and acts with intelligence to control, select, and decide what appetites have to be satisfied and in which way they may be satisfied.

The Super ego is the ethical or moral arm of personality. It is idealistic and does not care for realities. It emphasized on perfection rather than pleasure. In a general way, the Super Ego is thought to be the social development of the personality.

Freud's theory of personality is a comprehensive theory and includes almost all aspects of personality and its complexities. It is a holistic approach to understand personality. This theory is very helpful to understand personality.

Adler's individual approach to personality: According to Adler, human beings cannot be divided into different types. He believed that each man creates a self-structure out of his heredity endowment, and the impression that he receives from the environment. If we want to understand the nature of personality of a person, we have to study his specific life style. Adler initiated the individual approach to the study of personality patterns, and maintained that there are no distinct personality types or classes. Each individual is unique in himself because everybody has definite goals and style of his life. Adler is criticized for giving much importance to organic factors and interpreting superiority in negative terms.

d) **Humanistic theory of personality:** The humanistic approach reflects a humanistic trend in dealing with and understanding human behaviour. Humanistic psychology is advocated by Abraham Maslow and Carl Rogers.

The self-actualization theory of Maslow: The American psychologist Maslow adopted the humanistic approach for studying personality. According to this theory, human beings are basically good or neutral rather than evil. The basic assumption of the theory is that there is a hierarchy of human motives or needs. At the base are the biological needs and above them, in their order, are the safety needs, the belonging and love needs, the esteems needs, and the needs for self- actualization. The behaviour or personality of a person depends upon his style of striving towards the ultimate goal of self-actualization. Man craving for the actualization of his inner potential continues until he reaches his ultimate goal of attaining humanistic values.

Carl Roger's self-theory of personality: Carl Roger, an American psychologist stresses on two basic systems–the organism and the self. The organism is an individual's entire frame of reference. It represents the totality of a person's experience-both conscious and unconscious. The self is the accepted, aware part of experience. Human beings have inherited the tendency to develop their self in the process of interpersonal and social experiences, which they acquire in the environment. Once a concept of self is formed, the individual strives to maintain it by regulating his behaviour.

Conclusions about various theories of personality: We have discussed various theories of personality in the present unit. The type approach classifies people into definite types based on distinct personality; the trait approach emphasized certain basic personality traits. The psychoanalytical approach stresses on unconscious motives. The humanistic approach underlines the finer values of the human beings. The study of personality theories thus helps us to understand the nature, mechanism and dynamics of personality.



CHECK YOUR PROGRESS

Q.5: Write the self-theory of personality by Carl Roger.

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10.5 MEASUREMENT OF PERSONALITY

There are different techniques of personality measurement based on different kinds of observation about individuals. There are situational tests, rating scales, and many other devices to assess personality. Psychologists have developed many reliable and scientific methods for the measurement of personality. Some of the important methods are described below:

- **Observation:** Observation is the objective method of studying the behaviour of a person. There are two processes of observation. In open observation, the observer does not hide himself from the subject, and in second method, he observes the behaviour of his subject from behind the screen. The data which are obtained from observation can be carefully analyzed, classified and interpreted. However, the Observation method has certain limitations, which are mentioned below.
  a) There is a tendency in the human mind to read its own thoughts, feelings, and tendencies into other mind.
  b) Bias and prejudice affect our observation and interpretation of other's behaviour. We do not usually find fault with our friends, but we always find fault with our enemies.

- **Situational tests:** May and Hartshome developed many situational tests to assess such traits as honesty, shyness etc. In situational tests, the behaviour of an individual is assessed in an artificial situation. For instance, honesty of a student may be evaluated in the examination hall without invigilators. In the selection of Military personnel, many situational tests are used. Again, by using the technique of psychodrama, the personality of an individual can be assessed. However, it is difficult to use situational test technique because it needs trained psychologists to observe and interpret the behaviour of the subjects.
- **Interview:** Interview is an important technique to elicit personal information from the subject in face-to-face contacts. On the basis of the interview results, most of the selection for different jobs and admission in various courses are made. Interview is of two types-structured and unstructured. In a structured interview, a systematic predetermined approach is adopted, and all the subjects are uniformly asked similar questions. In an unstructured interview, the interviewer is free to ask the subject any question relevant to the situation. The limitations of the interview methods are:
  a) It needs well-trained interviewer.
  b) It is not free from the subjective bias of the interviewer.
- **Questionnaire:** This method is used to assess personality traits. The individual is asked a large number of crucial questions, which he has to answer by saying yes or no. In this method, no conversation with the subject is undertaken as it is done in the interview method. This also saves time, because many persons can be examined at a time. This method was first practised during World War I in order to examine the personality of recruits who were unstable from emotional point of view. This is the most popular method, and is quite useful in collecting both qualitative as well as quantitative information. This method has certain drawbacks.
  - ➢ It lacks validity.
  - ➢ The subject can sense his answers in either direction he wishes.

- **Personality Inventory:** Personality inventory is specifically developed to seek answers about the person and his personality. It requires self-description of feelings, preferences, thought or actions with the help of a standard set of questions. R.S. Woodworth developed the first inventory consisting of 116 questions about common physical and mental traits.

  The best-known personality inventory is the Minnesota Multiphasic Personality Inventory (MMPI) developed by J. C. McKinley and S. R. Hathaway. The items of MMPI cover the total personality. The inventory consists of 550 items. Some of the items are as follows:

  - I sweat very easily even on cool days.
  - I like to talk about sex.
  - There is something wrong with my sex organs.

  The items are printed on separate cards. After reading the questions, the subject responds, yes, no or doubtful. This inventory was devised to detect pathological cases.

  The California personality inventory, the Eysenck personality inventory and Sixteen personality factor inventory (16 PF) developed by Cattell are some of the other well-known inventories. The Personality inventory technique has some drawbacks, they are:

  - The subject may give selective responses rather than genuine ones.
  - He may be ignorant of his/her own traits or qualities, which he/she may possess.

- **Rating Scale:** Rating scales are devised to evaluate a single trait. Teachers may use rating scales to classify their students on a particular trait like persistence, leadership, or cooperation. There can be three, five, seven, or even more points in the scale. The more the number of points, the greater the discrimination in judgment is required. There are three basic factors involved in this technique.

  - The specific trait or traits to be rated.
  - The scale on which the degree of possession or absence of the trait has to be shown.

- The appropriate persons or judges for rating.

There are some drawbacks of the rating scale. They are as follows:

- The rating is affected by 'Halo Effect'. This means that when we form a favourable impression of a child because of certain qualities which we admire, we tend to rate him high on all the traits which we consider desirable. Thus, if we admire a child for his manners and politeness, we also tend to rate him high in emotional stability and honesty etc.
- In some cases the dimension in the scale are ambiguous to the rater, and he can interpret in his own way.

- **Sociometry:** This technique is the contribution of social psychology and concentrates on studying the relationship among the members of a group. In doing so, it reveals some important characteristics about an individual's personality. The technique was devised and expounded by Moreno, and it seeks to obtain social preferences with references to a specified criterion. Sociometric studies have been made of many types of social groups including classroom groups. For example, students may be asked to give their preference in response to such questions:
  - Who would you like to sit with in the class?
  - Who would you like to share your book with?
- **Projective Techniques:** In Psychology, the term 'projection' suggests the tendency of an individual to see his own unwanted traits, ideas, and motives in other people or objects. The use of projective techniques for personality assessment is based on the importance of unconscious as suggested by Freud in his concept of personality. The technique of projection is applied to personality assessment through the use of projective tests. The projective test attempts to identify a person's motives and mechanism by introducing an ambiguous stimulus for interpretation as he can. These tests are very useful with young children, illiterate people and persons with language handicaps or speech defects. There are some widely used projective tests, they are:

- Rorschach's Ink Blot Test
- Thematic Apperception Test (TAT)
- Children's Apperception Test (CAT)
- Word Association Test
- Sentence Completion Test

Rorschach's Ink Blot Test and Thematic Apperception Test are very popular and widely used projective tests.

- **Rorschach's Ink Blot Test:** This test was developed by the Swiss psychologist Herman Rorschach. Perceptual approach is the basis of this test. The perception of an individual is influenced by the emotional and social make-up when he is asked to perceive a figure, which is not well defined. In this test, an individual projects himself into the test situation and reveals certain depth factors in his personality. The subject is shown 10 inkblot cards. Each card is given to the subject. In turn, he is asked to tell what he sees in the inkblots. The counselor notes whatever the subject says. These inkblots are highly ambiguous and do not carry any specific meaning. The subject is allowed to look at the cards from different angles. Different subjects see different things in these inkblot cards. Following the presentation of all the 10 cards, the counselor makes enquiry from the subject systematically in an effort to determine exactly what the subject saw. Responses to the test are scored in terms of location, determinants, contents, and the popularity or originality. This test helps to distinguish between normal persons and persons in need of psychiatric treatment.

  There is greater complexity in the technique of interpretation of Rorschach test. The interpretation requires a deep insight in the dynamics of human personality, thorough training and experience.

- **Thematic Apperception Test (TAT):** This test was developed by Morgan and Murry in 1935. This test consists of perception of certain pictures in a thematic manner. The test material comprises thirty pictures of human figures in some situations

with definite outlines. Ten of these pictures are meant for males, ten for female, and ten are common to both sexes. The pictures are presented one at a time. The subject is told to make-up a story for each of the pictures presented to him and describes: what is going on in the picture, what would likely to happen in such a situation etc. The subject identifies with one of the figures, indulges in the fantasy, and interprets the picture according to his dominant motives and outlook on life.

10.6 PERSONALITY ADJUSTMENT

Every human being seeks adjustment to various situations. He constantly makes efforts to adjust himself to his surroundings because wholesome adjustment is essential for leading a happy life and gaining satisfaction. The process of adjustment is continuous. This process starts right from the birth of an individual and continues until his death.

The individual always tries to bring about changes to overcome various difficulties in his environment. He tries to maintain a balance between his needs and his capacity of realizing the needs. Therefore, as long as this balance is maintained, the individual remains adjusted. The mechanism of adjustment involves a successful interaction between two kinds of forces, they are-the environmental and innate. Generally, we use the adjustment mechanisms in our everyday life. These are protective devices against frustration and they reduce our emotional strain. An adjusted and normal person, who attacks problems directly, tolerates some amount of frustration, acts rationally, makes efforts to reach own goal, enjoys the company of others, is cheerful and energetic, and possesses an optimistic view of life.



CHECK YOUR PROGRESS

Q.6: Mention the various techniques of personality measurement.

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Q.7: What is projective test?

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10.7 DEFENSE MECHANISMS

There are many situations in which we are not able to find out solution to our problems. This causes frustration and conflict in the mind. In such a situation, we adopt various adjustment mechanisms, which are known as defense mechanisms to save ourselves from unwanted situations. These adjustment mechanisms are psychological devices, which a person employs to protect himself from frustrations. There are two methods of adjustment for maintaining harmony between the individual and the environment. One is direct and the other is indirect. ***The direct methods are as follows–***

- **Renewed effort:** A person who considers that failures are the pillars of success is never disheartened because of his failure. He works against a barrier of personal deficiency.
- **Adoption of substitute:** An individual considers a substitute goal when attempts to reach the original goal when attempts to reach the original goal fails.
- **Submission:** When an individual finds it difficult to cope with his environment, he accepts the defeat and surrenders himself to the forces of environment.

The ***indirect methods*** of adjustment are as the following:

- **Repression:** It is denying oneself all forms of need gratification in order to escape the pains of a frustrating situation. Repression does not solve the real problem. It often leads to mental disorder. It results in complexes which play a great role in the determination of behaviour and development of personality.
- **Sublimation:** It plays a major role in moulding personality and in the development of traits. It is the mechanism in which all divisions of the psyche, the Id, Ego and Superego work in connection with each

other. Repression is the process by which unconscious and unsocial desires are channeled into socially accepted activity.

- **Withdrawal:** In this mechanism, a person withdraws himself from the circumstances that cause frustration. An individual may learn to cope with one's environment by accepting defeat and surrounding oneself to the powerful forces of environment.
- **Negativism:** An individual draws the attention of other persons by a mechanism. It is purely a defense and partly an escape mechanism. Negativism is a tendency to do just the opposite of what is required.
- **Compensation:** It is the tendency of every person to make-up deficiency of one area of development in another area. When a person feels weak and fails in one area, he compensates in another field. He works hard to become successful. For example, a physically handicapped person may strive hard to excel in studies.
- **Identification:** In identification, a person feels one with another person. It may be a conscious process; the person seems to be aware of his attempts to make himself similar to a model who has the characteristics that are supposed to reduce his anxiety.
- **Rationalisation:** It is the most popular adjustment mechanism, which is used by almost all people in day-to-day life. Through this, an individual justifies his beliefs and actions by giving reasons. In this mechanism, a person tries to convince himself that he has got exactly what he wanted. The fox of the fables that could not get the grapes said the grapes are sour.
- **Projection:** By projection, a person tries to hold others for his undesirable behaviour. It is a mechanism, which relieves frustration of the person. In order to reduce his feeling of guilt, the individual may ascribe his own weakness to other people. When projection is used too frequently, it indicates the symptoms of mental ill health.
- **Aggression:** Aggression is a mechanism of reducing tension. It is caused by frustration and humiliation. Aggression may be of two types– direct and indirect. For example, a boy may attack his brother who prevents him from playing with fire. This is direct aggression.

However, if a wife annoyed with her husband, starts striking her baby, then it shall be considered indirect aggression.

- **Regression:** It is the mechanism whereby an individual returns to infantile behaviour after reaching the maturity level. For example, schizophrenic patients are often found to regress from the adult world to infancy.

From the above discussion, it is revealed that adjustment mechanisms are mostly unconscious. They are not acquired deliberately. However, their use gives us relief from tension and anxiety. When treated as symptoms of abnormality.



CHECK YOUR PROGRESS

Q.8: What is defense mechanism?

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10.8 LET US SUM UP

- At the beginning of this unit, we discussed the concept of personality.
- From the various definitions of personality, we came to know that personality is something unique and specific. Every one of us is a unique person in oneself.
- Psychologists have classified personality theory into some broad categories, such as type theory, trait theory, psychoanalytical theory, and humanistic theory etc.
- There are various kinds of techniques for the assessment of personality.
- Every human being seeks adjustment to various situations in life.
- Defense mechanisms help us to solve ourselves from unwanted situations.



10.9 FURTHER READING

1) Aggarwal, G. C. (1996). *Essential of Educational Psychology*. New Delhi: Vikas Publishing House.

2) Chauhan, S. S. (1977). *Advanced Educational Psychology* (6th Ed). New Delhi: Vikash Publishing House Pvt. Ltd.

3) Sarma, M. (2008). *Educational Psychology*. Dibrugarh: Tushar Publishing House.



10.10 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Personality is the totality of everything about an individual– his emotional, physical, ethical, mental, social, and spiritual make-up.

Ans. to Q. No. 2: According to G. W. Allport, "Personality is the dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to the environment.'

Ans. to Q. No. 3: Hippocrates, Kretschmer Sheldon and Jung belong to type theory.

Ans. to Q. No. 4: Common traits, unique traits, surface traits and source traits.

Ans. to Q. No. 5: Carl Roger, an American psychologist stresses two basic systems– the organism and the self. The organism is an individual's entire frame of reference. It represents the totality of person's experience– both conscious and unconscious. The self is the accepted, aware part of experience. Human beings have inherited the tendency to develop their self in the process of interpersonal and social experiences, which they acquire in the environment. Once a concept of self is formed, the individual strives to maintain it by regulating his behaviour.

Ans. to Q. No. 6: Observation, situational test, Interview, Questionnaire, Personality Inventory, Rating scale, Sociometry and Projective techniques.

Ans. to Q. No. 7: The projective test attempts to identify a person's motives and mechanism by introducing an ambiguous stimulus for interpretation as he can.

Ans. to Q. No. 8: There are many situations in which we are not able to find out solution to our problems. This causes frustration and conflict. In such a situation, we adopt various adjustment mechanisms, which are known as defense mechanisms, to save ourselves from unwanted situations.



10.11 POSSIBLE QUESTIONS

A) Very Short Questions (Answer each question in about 50 words)

Q.1: Define the term personality.

Q.2: Give a definition of personality.

Q.3: What do you mean by traits of personality?

B) Short Questions (Answer each question in about 150 words)

Q.1: Write about the trait theory of personality.

Q.2: Discuss the various techniques of measuring personality.

Q.3: What are the methods of defense mechanism?

C) Long Questions (Answer each question in about 300-500 words)

Q.1: Discuss the various theories of personality.

Q.2: Discuss the psychoanalytic theory of personality.

Q.3: What is projective technique? Explain Rorschach's inkblot test.

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UNIT 11: EDUCATION FOR EXCEPTIONAL CHILDREN

UNIT STRUCTURE

11.1 Learning Objectives

11.2 Introduction

11.3 Meaning of Exceptional Children

- 11.3.1 Objectives of Special Education for Exceptional Children
- 11.3.2 Principles of Education for Exceptional Children

11.4 Gifted Children–Meaning

- 11.4.1 Identification of the Gifted Children
- 11.4.2 Characteristics of the Gifted
- 11.4.3 Education of the Gifted

11.5 Mentally Retarded Children – Meaning

- 11.5.1 Classification of the Mentally Retarded
- 11.5.2 Education of the Mentally Retarded

11.6 Backward Children– Meaning

- 11.6.1 Characteristics of the Children
- 11.6.2 Education of the Backward Children

11.7 Let Us Sum Up

11.8 Further Reading

11.9 Answers to Check Your Progress

11.10 Possible Questions

11.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- discuss the meaning of 'exceptional children';
- identify the objectives and principles of special education for exceptional children;
- design educational programmes for the gifted children;
- identify the different steps for educating the mentally retarded children; and
- describe the methods of educating the backward children.

11.2 INTRODUCTION

Educating exceptional children is quite a stimulating and interesting field of education. We are familiar with the process of educating normal children and its related aspects. Exceptional children are a special category of children who deviate from normal children in different ways. They need typical teaching approaches to suit their exceptionality as a learner. Exceptional children require special education and related services to realize their full human potential. In India, it is a new field of education, which was totally neglected before Independence. It attracted the attention of educationists and parents after 1947. In 1964, the Kothari Commission was the first education commission to bring up the issue of children with special needs, and it gave strong recommendations for including such children into ordinary schools. Recently, stress has been laid on special education programmes and the development for exceptional children as a part of the general education. The World Health Organisation (1999) has estimated that between 7 and 10 percent of the world's population has some type of disability, and that 80 percent of these live in the developing countries, out of which one third are in India. This unit will introduce you to this special category of children, which includes meaning of exceptional children, objectives and principles of special education, educational programmes for the gifted, mentally retarded, and backward children.

11.3 MEANING AND DEFINITION OF EXCEPTIONAL CHILDREN

Let us first discuss the meaning of exceptional children. As mentioned above, exceptional children are a special category of children who deviate from normal children in different ways. However, it is not very easy to define the term "exceptional children" because each child is unique and exceptional in itself and is different from one another. They differ physically, mentally, socially and emotionally. Generally, such differences are of little importance when a child grows and develops according to certain yardsticks of medical and psychological experts. They are classified as

'normal'. However, when there is some deviation in degree, with regard to physical, intellectual, social, and emotional aspects, these children are classified as "exceptional children". The Psychologists have attempted to define the term exceptional child, but no single definition has been agreed upon by them. Kirk has given a comprehensive definition of exceptional child, which is as follows:

"An exceptional child is he who deviates from the normal or average child in mental, physical and social characteristics to such an extent that he requires a modification of school practices or special educational services or supplementary instruction in order to develop to his maximum capacity."

According to W. M. Cruchshank, "An exceptional child is he who deviates physically, intellectually, emotionally and socially so markedly from normal growth and development that he cannot be benefited from a regular classroom programme and needs special treatment in schools."

Crow and Crow state that, "the term typical or exceptional is applied to a trait or to a person possessing the trait if the extent of deviation from normal possession of that trait is so great that because of it the individual warrants and receives special attention from the behavior responses and activities are thereby affected."

The Committee for the National Society for the Study of Education (Kar. C. 1992, P 1) has described exceptional children as "those who deviate from what is supposed to be average in physical, mental, emotional, or social characteristics to such an extent that they require educational services in order to develop their maximum capacity."

An analysis of the above definitions reveals the following points:

- Exceptional children represent the children who deviate from the normal growth in different dimensions of development.
- These children are far enough below or far enough above the average range.
- They need specialized attention, which is not provided in regular classrooms.
- The difference lies in learning or behaviour of the child. The word "exceptional" is used to obtain better understanding about the child.

11.3.1 Objectives of Special Education for Exceptional Children

Now you know that exceptional children are called so because they deviate from the normal ones with regard to physical, intellectual, and emotional capabilities. Hence, their needs are different from the normal children. Some may have very high IQ, while others may have very low intelligence or some others may be emotionally disturbed. Therefore, their development depends upon the educational programmes designed for them. The UNO Declaration of the Rights of the Child (1959) states, "The child who is physically, mentally or emotionally handicapped shall be given special treatment, education and care required by his particular condition." The objectives of special education for exceptional children are:

- To identify the needs of the exceptional children.
- To prepare effective curricular matters that strategically determine effective living for a particular type of exceptional children.
- To develop proper teaching methodology and techniques to make teaching effective for exceptional children.
- To provide proper equipments necessary for teaching learning process.
- To develop motivational patterns in the exceptional children which produces achievement in the school.
- To encourage such children to participate in the activities of the schools.
- To educate them in such a manner that they gain self-confidence and become self-reliant.
- To conduct continuous re assessment of exceptional children to ensure progress.
- To promote research activities, training programmes and coordination between centre, state and local agencies to carry out different programmes successfully for exceptional children.

11.3.2 Principles of Education for Exceptional Children

There are certain principles of the education for exceptional children. These are given below:

- The basic guiding principle of education for exceptional children is equality, not identity. Education should reach all children. Everybody should get equal opportunity to develop his or her personality irrespective of his/her exceptionality.
- There exists wide range of individual differences among the children in each domain of exceptionality. Early screening, identification and placement in special educational programmes are essential because exceptional children make optimal progress in educational institutions.
- Team of trained personnel like psychologists, educational specialists, psychiatrists and medical personnel are necessary for proper placement.
- A special curriculum should be prepared to match the need of exceptional children. Education for exceptional children should form an integral part of a total educational programme. To ensure progress there should be continuous reassessment of exceptional children. Reevaluation of institutional programmes is also necessary.
- The school must take the responsibility of placement assistance for each student. For promotion of research activities, selection of teachers, organizing training programmes etc. the central; state and local agencies should take joint responsibility.



CHECK YOUR PROGRESS

Q.1: What do you mean by exceptional children?

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Q.2: Explain the objectives of special education.

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Q.3: What are the principles of education for exceptional children?

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11.4 GIFTED CHILDREN– MEANING

The term 'gifted' is used to refer to children who are intellectually, creatively, academically or otherwise superior to others, and shows consistently remarkable performance in any worthwhile line of endeavour. These children are also referred to as genius, because their strengths are far beyond than their peers who perceived as smart, bright, and artistic. They demonstrate consistently high performance in areas requiring considerable mental ability. These children are considered exceptional because of the contributions they make, and the performances they demonstrate.

The definition of giftedness has been given from different angles. Some psychologists emphasise the importance of superior endowment, while some others emphasise the exceptional performance of the individual in different walks of life. We can broadly classify all these definitions into three classes on the basis of IQ, social potentiality, and statistical terms. (Chauhan, 2006, P 484). Let us briefly examine these three types of definitions.

- **Intelligence Quotient (IQ):** Generally, the term gifted is defined in terms of IQ. Different psychologists have set different range of IQ for gifted children. In 1925, L. M. Terman after conducting his famous longitudinal study on the gifted children set IQ 140 as the lower limit

of giftedness. Other authorities in psychology set the lower limit of IQ from 110 to 140 and upwards.

- **Social Potentiality:** The second type of definitions of giftedness is in relation to social potentiality of the child. According to Witty, "gifted children are those whose performance is consistently remarkable in music, art, social leadership, and other forms of expression." Tyler states that the gifted child is he who is exceptional in the amount of his production, rate and quality of his production.
- **Statistical:** The third type of definitions is related to the concept of percentage. According to some educators, the gifted children are those who fall in the top 2 per cent to 4 per cent of intelligence. Magnifice categorised gifted children into two classes: (a) A child whose ability as indicated by an intelligence test is within the range of the upper 2 per cent to 3 per cent of the population, (b) A child having outstanding ability in a specific area of knowledge as art and science.

Now we can say that gifted children are those children whose cognitive abilities place them in the upper level of population distribution. They constitute only 3 to 4 per cent of the population. The intellectually gifted has an IQ of 140 and above. They have superior cognitive ability, creativeness in thinking and production, and superior talent in special areas. According to Guildford, "the gifted are those students whose potential intellectual powers are at such a high ideational level in both productive and evaluative thinking that it can reasonably assumed that they could be the future problem solvers, innovators, and evaluators of the culture if adequate educational experiences are provided."

11.4.1 Identification of the Gifted

Identification of the gifted children is a collective effort of parents, teachers, psychologists, and social workers. Identification usually involves a combination of procedures such as:

- Group test of intelligence: As a preliminary screening device, these tests are very useful. After screening the gifted children on

the basis of group test, individual intelligence test may be administered.

- Achievement tests: A standardized achievement test may be used to identify gifted children.
- Creativity measurements: Creativity tests are aimed at assessing the qualities and abilities that constitute creativity. These tests evaluate mental abilities in ways that are different from conventional intelligence tests. These tests may also be used to identify the gifted children.
- School marks: School marks and cumulative records of pupils' achievement may give some indication of giftedness.
- Teacher nomination: On the basis of the observation both inside and outside the classroom, the teacher may pick up the gifted children.

11.4.2 Characteristics of Gifted Children

There is no doubt about the fact that the gifted children show their talent by their remarkable performance in different fields. Generally, such children are identified by their teachers who are able to do this by observing their performances. The characteristics of gifted children are:

- Cognitive: The children who are gifted can quickly understand abstract symbols and manipulate them, which is a significant indicator of intellectual giftedness. These children possess excellent memory and can learn concepts easily when compared to other children. They demonstrate fluency, flexibility, originality and foresight, which are components of divergent thinking. They also exhibit high level of reasoning ability and unusual retentive capacity.
- Academic: High academic aptitude is another characteristic of gifted children. They are often recognized for superior achievement in different school subjects such as mathematics, language, arts, science, social studies, or other academic

contents. Learning even complex content becomes easier to these children and exhibit high problem solving ability.

- Physical: Different studies on the gifted children reveal that they are physically slightly better than the children of average intelligence. Terman obtained the following details of the gifted children (Kar, C. 2006, p. 28):
  - Gifted children have greater weight at birth.
  - They walk and talk earlier.
  - They have early pubescence.
  - They are precocious.
  - They have better than average nutrition.
- The gifted children have more height, weight, strength of grip, shoulders, superior motoring ability, less defective hearing, mouth breathing, less stuttering etc.
- Personality: Research works confirmed that there is positive and intimate relationship between giftedness and personality. Usually, they have a strong desire to explore and create. They are ambitious and hardworking. Some psychologists have found that gifted children are impulsive and self confident and are interested in aesthetic expression and reflective thinking. Normally they are sensitive and have a high degree of motivation and enthusiastic. However, they are very resourceful and interested in abstract subjects.
- Sociability: Gifted children are socially popular and enjoy relatively high social status. They are less inclined to boast or overstate their knowledge. They were found to be more trustworthy and sincere. Their character preferences and social attitude are more wholesome.
- However, it should be remembered that all gifted children are not much better than the average child in their physiological characteristics, emotional stability, or social adjustments. In fact, the gifted children differ from each other very much in these respects. As a rule, all that can be said is that good qualities

generate better qualities, although this cannot be accepted as a universal rule. For this reason, it is desirable that each gifted child should be studied individually.

11.4.3 Education of the Gifted Children

Educating the gifted children is not an easy task because it raises many important questions such as, what should be the nature of curriculum for the gifted children. What method will be more effective? What kind of teachers they need? Whether gifted children should be taught in a regular class or a special class? etc. However, authorities agree that the gifted children when allowed to attend regular classes face many problems of their own. An average class and its programmes are planned for children of average ability. Therefore, they need special help. Educational provisions for gifted children can be put under the following categories i.e. Acceleration, Segregation and Enrichment

- Acceleration: The term 'acceleration' refers to various provisions in a school that help the gifted children to move at a faster rate according to their ability and complete their formal education earlier than convention dictates. Various forms of acceleration are: early entrance in the school, which will accelerate their efficiency in schoolwork and subjects, quick promotion, i.e., students are promoted to an advanced grade, at the end of half year, which help them to make rapid progress and provides a challenge to their genius. Again, organising non-graded classes provide the facilities to cover various areas of work and extra courses or additional courses that create opportunities to go through varieties of experiences etc.
- Segregation: Segregation means creating separate facilities of teachers and equipments. Arrangement for separate special classes can be made by segregation in the general schools. The arrangement of a more extensive curriculum, extra-curricular activities, laboratory work etc. is made for gifted children. After

identification, coaching classes may be arranged to appear in various scholarship examinations and competitions. Various hobby clubs like science club, language club, arts club etc. may be introduced. Besides these, special schools with special curriculum, expert teachers, and extensive study facilities may be created.

- Enrichment: The major purpose of enriching a school programme for the gifted is to stimulate and foster optimum development. The enrichment of the curriculum must be both qualitative and quantitative. Qualitative enrichment of the curriculum means that gifted children should have greater opportunity to study more deeply into the subtle and abstract aspects of the topic. Quantitative enrichment means the breath of work, an addition of units of work or topic, participation in activity, projects, production of school magazine, community service etc.



CHECK YOUR PROGRESS

Q.4: Mention the methods of identifying the gifted children.

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Q.5: What are the cognitive characteristics of gifted children?

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Q.6: What is segregation?

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11.5 MENTALLY RETARDED CHILDREN– MEANING

Different persons perceive mental retardation differently, and many terms are used to define it. In 1955, the British psychologist Cyril Burt used the term "Subnormal mind". The American Psychiatric Association (APA) uses the term "mental deficiency". The World Health Organisation (WHO) has preferred to use the term "retardation". Professionals working in this area use terms like "exceptional individuals", "typical individuals", "feeblemindedness" etc. The contemporary psychiatrists and psychologists used the term "mentally retarded" or "mental deficiency".

A mentally retarded child is slow, or lacking in the development of mental functioning when compared to those of his age level. For example, a 10-year-old mentally retarded child may exhibit behaviour like that of a three or 4-year-old child depending on the level of mental retardation. It is because of this, such a child is perceived as different from others. It is a condition of arrested or incomplete development of the mind for which the individual is not capable of adapting himself to the normal environment and needs supervision, control, or external support. The WHO (1954) referred to it as "incomplete or insufficient general development of mental capacities."

The American Psychiatric Association (1968) has defined mental retardation as "subnormal general intellectual functioning, which originates during the developmental period and is associated with impairment of either learning and social adjustment or maturation or both."

The American Association of Mental Deficiency (AAMD), which is now known as American Association of Mental Retardation, after few revisions offer the following definition:

"Mental retardation refers to significantly sub average general intellectual functioning resulting in or associated with concurrent impairment in adaptive behavior, manifested during the developmental period."

An analysis of these definitions reveals three components to call a person mentally retarded–

- Significantly sub average general intellectual functioning.

- Impairment in adaptive behaviour, such as learning, social adjustment etc.
- Manifested during developmental period.

Average general intellectual functioning is considered to be an Intelligent Quotient (IQ) between 90 and 110 on a standardized intelligence test. In India, the two commonly used standardized tests to measure the IQ are the Indian adaptation of Stanford Binet and Wechsler Intelligence Scale for Children. As per the definition, two standard deviations below the average is considered significantly sub average. The second component i.e., adaptive behaviour is the effectiveness with which a person meets the standards of personal independence and social responsibility expected of his or her age. These get reflected in the development of sensory motor skills, communication skills, self-help skills, socialization of early childhood, application of reasoning and judgment, social skills etc. Any deficiency in these aspects is considered as a deficit in adaptive behaviour. The third component, i.e., manifested during the developmental period means not developing according to the stage of development. For example, if a 3 year child cannot walk or a 10-year child does not have toilet control or an 18 year old cannot identify a ten-rupee note, is considered impairment of adaptive behaviour. Thus, a person to be diagnosed as mentally retarded should essentially have his or her intellectual functioning significantly below average, which result in impairment of adaptive behavior and have acquired the condition before the age of 18 years.

11.5.1 Classification of Mentally Retarded Children

As stated above, with the help of intelligence test, we can understand the degree of mental retardation. In the first decade of the twentieth century, the first attempt to classify mental retardation in terms of intelligence tests was made. Alfred Binet (1905) developed some tests to measure intelligence in terms of reasoning and problem solving rather than motor skills. He also devised the concept of "Mental Age" (MA) and "Chronological Age" (CA) on the basis of which he can differentiate between bright children and dull ones. Binet tests

underwent several revisions. The educationists and psychologists are using these to classify mental retardation.

- Idiot IQ– below 24
- Imbecile IQ– 25 to 49
- Moron IQ– 50 to 69
- Borderline IQ– 70 to 79

However, attempts to bring out the levels of mental retardation on the basis of the degree of mental development expressed as equivalent to chronological age in terms of Intelligent Quotient (IQ) continued for a long period. Later on, it was felt that IQ alone cannot provide a measure of an individual's adaptive capacity. Therefore, the person's level of adaptive behaviour in terms of the degree to which he or she meets the standard of personal independence and social responsibility according to age and cultural group were also taken into account. Keeping all these factors in view, a new attempt was made to develop a different type of classification with new terminologies. These are (i) Mild mental retardation (IQ 52 to 68) (ii) Moderate mental retardation (IQ 36 to 51) (iii) Severe mental retardation (IQ 35 to 20) (iv) Profound mental retardation (IQ under 20).

It would be worthwhile to mention here that the classification label should be used only for administrative purposes such as availing social benefits like travel concessions, maintenance allowance, job reservation, and so on. For an educator, the focus should be on the present status or current level of functioning of the child. This will help the educator to develop programmes for training the child towards social competence and to help him remain as independent as possible in the society.

11.5.2 Education of Mentally Retarded Children

Mentally retarded children, whose IQ below 70, no improvement is possible through education in the ordinary schools. They need to be sent to the specialized schools and institutions. Special method of teaching, individualized instruction and learning

by doing should be adopted for teaching such children. The type of education that should be provided to these children according to their classification is discussed below.

- **Education of Mildly Mentally Retarded Children:** About 90% of the mentally retarded children are found to belong to this category. This group of children is considered 'educable'. Intellectually, they are equal to 8 to 11 year old child. With parental assistance and special training, they can be taught to be self-supporting. Special education classes at the primary level can provide oral language and speech development, sensory development, self-awareness, social adjustment, self-care, safety, manipulation of materials, work habits etc. Academic tasks are not emphasized except for beginning instruction in counting and recognition of letters or words. By the elementary level (8 to 13 years) mildly mentally retarded can learn reading, writing, spelling and arithmetic. Special education for mildly mentally retarded children should focus on developing basic academic skills, social competence, personal adjustment, and ability to do practical work.
- **Education of Moderately Mentally Retarded Children:** About 6% of the mentally retarded children belong to this category. They are known as trainable retardates. Intellectually these people are equal to 5 to 8 old year child. Their rate of learning is very slow, and they physically suffer from motor in-coordination. Brain damage and neurological disorders are also found among moderate retardates. With parental help and adequate training and individualized instruction, each child should be allowed to proceed at his or her own pace of learning according to their unique growth pattern. Emphasis should be generally on developing self-help skills, social adjustment through group activities and some vocational experiences and practice in home living.
- **Education of Severely Mentally Retarded:** Severely retarded people represent more than 3% of the retarded individual. They

suffer from severe mental retardation in motor and speech development. Sensory defects are also common and face difficulty in learning simple tasks. School activities include practice in listening, following directions, communicating with others, recognizing common signs and labels, counting and telling time. Besides these, lessons in self help activities like dressing, grooming, eating, toileting, and safety should be given.

- **Education of Profoundly Mentally Retarded Children:** This group represents 1% of the mentally retarded people. They are severely deficient in adaptive behavior and unable to do simple tasks. The question of education or training does not arise. They are unable to look after themselves and cannot attend to their basic physical needs. These people require constant supervision throughout their life.

11.6 BACKWARD CHILDREN– MEANING

In the preceding section of the unit, we have discussed mentally retarded children. You must have understood that mentally retarded means intellectually backward children. However, there is another group of children who are educationally backward. They lag behind the normal or average children in their educational capabilities. These pupils have IQ between 76 to 89, and they constitute 10% to 15% of the total school population. Their ability to deal with language, number and concepts are very limited and their reasoning in practical situations is inferior to that of average students. Research work reveals that the attention span of these learners is relatively short. In school, such children remain in the same class for several years, and fail to progress upward. The term ‘backward’ or ‘slow learner’ is used for these children. The teacher can identify them by their facial features, inattention, and failure to respond to simple questions in the class.

Burton Hall defined “backwardness in general, is applied to case where their educational attainment falls below the level of their natural abilities.”

Cyril Burt has defined a backward child "as one who in mid- school career is unable to do the work of the class below that which is normal for his age."

Kirk took "rate of learning" as the basis for identifying slow learners. The rate of learning by a backward child is slow, and it finds difficulty to keep pace with the normal child in his schoolwork. Previously, the psychologists held that slow learning is directly related to heredity. However, recent studies in this regard has revealed that heredity alone is not responsible, as the environment also contributes significantly to the scholastic achievement of the child.

11.6.1 Characteristics of Backward Children

- The meaning and nature of backward children will be clearer if we discuss the characteristics of backward children, which are as the following:
- The backward children cannot learn speedily like the normal children. They have limited cognitive capacity.
- The ability of critical thinking and logical analysis is lacking in the backward children.
- One of the pertinent characteristics of the backward children is poor memory. It occurs due to the lack of concentration.
- Inability to express ideas through language is another significant characteristic. A backward learner also lacks imagination and foresight.
- In the backward children, it is usually found that there is lack of physical and mental coordination.
- They also lack motivation to learn and become worried at trivial matters.
- The backward children may sometimes become aggressive as they suffer from feelings of insecurity and inferiority.

Education for Backward Children: Before any education programme is designed, the backwardness of a child must be ascertained. There are different types of psychological tests such

as intelligence tests, achievement tests, personality tests etc. to examine and observe the levels of backwardness. After determining the level, the education programme should be designed accordingly. In our regular classroom, they are unable to cope satisfactorily the usual educational standards. However, with proper guidance and care they are capable of being educated. In adulthood, they become self supporting, independent and socially adjusted. The following are some of the means by which the backward children in our schools can be helped:

Individual Attention: Each individual backward child has his or her own academic problems. Therefore, the teacher should pay individual attention to these children. The curriculum should be as flexible as possible to suit the requirements and the needs of the individual student. The teacher should allow the student to proceed at his or her own rate of learning.

Special Methods of Teaching: Backward children require short and simple methods of instruction based on concrete experiences. Verbal instructions should be limited. The use of pictures, models, charts, films and other audio-visual aids will be profitable. Application of project method is also helpful in instruction.

Application of Learning Theory: The teacher should follow the recognized principles of learning. The backward child must be taught in simple steps so that he can master at his own pace. The child must receive immediate reinforcement for any success. The material should be made meaningful to him to insure retention. The child must be given the opportunity to practice his knowledge and skills through distributed repetition and a variety of appropriate tasks.

Provision for Remedial Teaching:

- Remedial teaching is helpful for the backward learners. However, the experts must determine deficiencies. The following points should be taken into consideration (Kar, C. 2006 P.75):
- Gradation of teaching materials may be carefully done taking the capacity and requirements of children into consideration.

- Short frequent lessons should be introduced instead of long lessons every week.
- A friendly approach in remedial teaching is highly conducive.
- To generate interest, social skills and confidence in slow learners, priority should be given to art music and drama.
- Practice, drill and review should be given importance.

Framing Special Curriculum: There should be simpler curriculum for backward children with less abstract concepts but with more facts and information. Again, with less scholastic material and more non-scholastic components, the curriculum should be so fashioned that when the backward child completes his course, he should be fitted to adopt some particular profession.



CHECK YOUR PROGRESS

Q.7: What is mental retardation? Mention the type of mental retardation.

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Q.8: Whom do you call a backward child? What are the characteristics of a backward child?

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11.7 LET US SUM UP

- Exceptional children are a special category of children who deviate from normal children in different ways. They need typical teaching approaches to suit their exceptionality as a learner. These children are far enough below or far enough above the average range. They need special attention, which is not provided in the regular classroom. They need special education.
- The objectives of special education are to identify the needs of exceptional children, preparation of effective curricular matters, developing special methodology for teaching and to encourage such children to participate in the activities of the school.
- Gifted children are those who are intellectually superior and show consistently remarkable performance. The IQ range of the gifted is 110 to 140 upwards. They constitute 3 to 4 per cent of the population. Gifted children possess high cognitive abilities. They have excellent memory and can learn difficult concepts easily. Gifted children are often recognized for super academic achievement. They have a strong desire to explore and create.
- The education of the gifted can be put under the following categories: Acceleration means providing opportunity to move faster than others do. Segregation means arranging special classes, extra-curricular activities, laboratory facilities etc. Enrichment means to stimulate and foster optimum development by creating opportunities for study deeply, improvement of length and breadth of work etc.
- Mentally retarded child means the child is slow, lacking in development of mental functioning when compared to those of his age level. It is a condition of arrested mental development for which the child is not capable of adapting himself to the normal environment and need external supervision, control and support. They are significantly sub-average in general mental functioning, impairment of adaptive behavior manifested during developmental period.

- Mildly mentally retarded and moderately mentally retarded children are 'educable' to some extent but it is very difficult to teach severely mentally retarded. Profoundly mental retarded are severely deficient in adaptive behaviour, unable to look after themselves and require constant supervision throughout their life.
- There is another group of exceptional children whose IQ range is between 76 to 89. They constitute 10% to 15% of the school population. However, their ability to deal with language, number and concepts are very limited and are inferior to average students. The rate of learning of these students is very slow. The term 'backward' or 'slow learner' is used to identify them.
- To design any programme of education for these children, firstly the level of backwardness should be determined. Accordingly, education should be provided. The steps for educating these children include individual attention, adopting special method of teaching, application of the principles of the learning theories, remedial teaching, and adopting special curriculum with vocational subjects etc.



11.8 FURTHER READING

1) Bhatia, B. D. (1958). *Remedial Teaching in Reading Retardation*. Delhi: Educational Form, III, C.I.E.
2) Curtis, K., & Shaver, J. P. (1980). Slow Learners and the Study of Contemporary Problems. *Social Education*. 44, 4, pp. 302-38, April.
3) Kar, C. (2006). *Exceptional Children: Their Psychology and Education*. New Delhi: Sterling Publishers Pvt. Ltd.



11.9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Exceptional children are those who deviate from normal children in different ways. Some may have very high IQ while others may have low intelligence and some others may be emotionally

disturbed. They need typical teaching approaches to suit their exceptionality as a learner.

Ans. to Q. No. 2: The objectives of special education are to identify the needs of exceptional children, to motivate such children to learn, to encourage them to participate in the activities of the school, to educate them to be self reliant and self-confident.

Ans. to Q. No. 3: The basic guiding principles of education for exceptional children is equality not identity, recognition of individual differences in each domain of exceptionality, developing special curriculum, continuous assessment to ensure progress etc.

Ans. to Q. No. 4: Group and individual tests of intelligence, achievement tests, creativity tests, school marks and teachers' opinion.

Ans. to Q. No. 5: The cognitive characteristics of gifted children are outstanding memory, ability for abstract thinking, high level of language development, high level of verbal ability, flexible thought process, ability generate original ideas and solutions etc.

Ans. to Q. No. 6: Segregation means creating separate facilities for gifted children, such as, arranging special classes, coaching, special curriculum, expert teachers and extensive study facilities etc.

Ans. to Q. No. 7: Mental retardation means intellectual backwardness. It refers to significantly sub average general intellectual functioning, impairment of adaptive behavior, manifested during developmental period. The types are– mildly mentally retarded, moderately mentally retarded, severely mentally retarded and profoundly mentally retarded.

Ans. to Q. No. 8: Backward children are those who lag behind the normal children in their educational capacities. Their educational attainment falls below the average children. The characteristics of these children are– they cannot learn speedily as normal children, the ability of critical thinking and logical analysis is lacking in backward children, lack of physical and mental coordination, lack of motivation to learn and become.



11.10 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q.1: What do exceptional children mean? What are their characteristics?

Q.2: What are the needs of exceptional children?

Q.3: What are the objectives of education for exceptional children?

Q.4: What type of education is needed for the slow learners and backward children?

Q.5: Mention the methods of identifying the gifted children.

Q.6: What types of education is needed for the mentally retarded children?

Q.7: Mention the methods of identifying the mentally retarded children.

B) Long Questions (Answer each question in about 300-500 words)

Q.1: How can you identify the gifted children? How should be the suitable education programme for gifted children?

Q.2: What are the characteristics of backward children? What are the objectives of education for backward children?

Q.3: What are the characteristics of slow learners? What types of education should be designed for these learners?

Q.4: What are the characteristics of mentally retarded children? What types of education should be designed for these learners? Discuss.

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UNIT 12: MENTAL HEALTH AND HYGIENE

UNIT STRUCTURE

12.1 Learning Objectives

12.2 Introduction

12.3 Concept of Mental Health

- 12.3.1 Definitions of Mental Health
- 12.3.2 Nature of Mental Health
- 12.3.3 Characteristics of Mentally Healthy Individuals
- 12.3.4 Components / Factors of Mental Health

12.4 Concept of Mental Hygiene

- 12.4.1 Definitions of Mental Hygiene
- 12.4.2 Purposes of Mental Hygiene
- 12.4.3 Mental Hygiene and Education

12.5 Ways for Maintaining Health and Hygiene in Schools

12.6 Promoting Mental Health and Hygiene

- 12.6.1 Role of Home
- 12.6.2 Role of School
- 12.6.3 Role of Society

12.7 Let Us Sum Up

12.8 Further Reading

12.9 Answers to Check Your Progress

12.10 Possible Questions

12.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- explain the concept, definition and nature of mental health;
- describe the nature of mentally healthy individuals and various factors of mental health;
- explain the concept and purposes of mental hygiene;
- discuss the relationship of mental hygiene with different aspects of education;

- suggest ways and means for maintaining health and hygiene at schools; and
- identify the role of parents, school and society for promoting health and hygiene.

12.2 INTRODUCTION

This unit introduces you to the concept of Mental Health and Hygiene as well as the various factors that influence the mental health of individuals. When we talk about mental health, it generally means an important and essential part of personality. Mental health and physical health are the two indispensable parts of personality, which directly influence the overall development of an individual. The quality living of an individual manifests when his physical health and mental health work together in the same direction in a balanced way. When a person's thinking, feeling and doing work together for a common goal, then we can call him a person with a balanced personality. A physically healthy person is one who has no abnormalities in physical health and his body functions harmoniously in the absence of any physical ailments or disorders. Likewise, a mentally healthy person is one who is free from mental illness, tensions, and maladjustments. Mental health is the ability to face the challenges or the realities of life, to feel happy and hopeful, and to remain optimistic in any situation of daily living.

Mental health has two important aspects, the first one is individual and the other one is social. The individual aspect of Mental Health indicates that the individual is well adjusted internally and is free from internal tensions, stress and conflicts. He/she is self-confident in his/her actions and decisions. Social aspects indicate that the individual is not only well adjusted internally, but is also able to adjust to any social situation and maintain good social relationships with others. Thus, mental health indicates a harmonious relationship of an individual's physical, mental, social, and moral values. A person with good mental health radiates a happy, hopeful and a balanced personality. In this unit, we shall try to discuss mental health and hygiene in some detail.

12.3 CONCEPT OF MENTAL HEALTH

It is very difficult to define the concept of mental health in simple terms. Psychologists show disagreement in coining a single definition of mental health. Due to the changes in the social, economic, scientific arena following the Industrial Revolution, various new situations and problems have emerged in the life of an individual. All these situations appear as challenges to the individuals. The ability to face challenges courageously without any sign of stress, strain, and conflict but with a happy mindset can be rightfully termed a good mental health. Thus, mental health is the ability to make a perfect balance in an individual's thinking, feeling, and doing.

When we talk about health, it not only means physical health but also encompasses mental health. The ability to control emotions with a healthy mind is the perfect example of a sound health. We can also infer that human beings are psychosomatic units with a balanced physical and mental entity. Both physical and mental health influence the total behaviour of an individual. The personality of an individual is the byproduct of both physical and mental health.

Mental health also indicates satisfactory adjustment of an individual with his environment, his needs and desires as well as his concern for other people's needs and desires. It also indicates a cordial relationship of an individual with the society at large. Thus, mental health is the ability of an individual to undertake any work with proper and right decisions besides assuming responsibilities of his own as well as that of others, and living life with a happy and positive mental attitude. To understand the concept more easily, we have to go through the various definitions put forward by the famous psychologists of different era. In the following sub section, we shall read some of the definitions of mental health.

12.3.1 Definitions of Mental Health

Different thinkers, psychologists, and philosophers have provided various definitions of mental health. The following are some of them.

- According to Oxford dictionary meaning, “Mental Health is the ability to cope with one’s environment and secure some degree of satisfaction from working and living accompanied by the promise of hope for the future.”
- According to World Health Organization, “Mental Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.”
- According to the White House Conference Preliminary Report (1930), “Mental Health may be defined as the adjustment of individuals to themselves and the world at large with a maximum of effectiveness, satisfaction, cheerfulness and socially considerate behavior and the ability of facing and accepting the realities of life.”
- According to J. A. Hadfield, “Mental Health is the full and harmonious functioning of the whole personality.”
- According to Norma E Cutts and Nicholas Mosely, “Mental health is the various strains of the environment we meet in life and mental hygiene as the means we take to assure the adjustment.”
- According to H. W. Bernard, “Mental Health involves continuous adjusting rather than a static condition and is therefore a progressive goal. It is an ability to cope with the present and in all likelihood to adjust satisfactorily in the future.”
- According to Meninger, “Mental Health is the adjustment of human beings to the world and to each other, with a maximum of effectiveness and happiness.”

Thus from the above definitions, we observe that mental health is the ability to adjust satisfactorily with the changing situations of life. It is the ability through which the individual makes a perfect balance between his bodily and mental activities to achieve a common goal. It is a state of harmonious functioning of individual personality. Mental health indicates some qualities of an individual like happiness, hopefulness, ambition, ability to make independent decisions, self-confidence, adaptability, taking responsibility and so

on. The mentally healthy individual can develop a balanced personality through which he can control his own emotions like anger, jealousy, tensions, fear etc. and live a fully harmonious life with happiness, satisfaction and success, besides easily adjusting with his/her personal and social life.

12.3.2 Nature of Mental Health

The nature of mental health can be discussed as the following:

- Mental Health is considered an important aspect of a person's total health status, which consists of a balance between physical and mental health.
- Mental Health refers to the capacity of an individual to interact with one another in a way that promotes the feeling of well being.
- Mental Health is an active, positive quality of an individual's daily living. The quality of life is manifested in the behaviour of an individual whose body and mind are working together in the same direction. His thoughts, feelings, and actions are harmoniously associated with achieving the common end.
- Mental Health also means the ability for balanced feelings, desires, ambitions and ideals in one's daily living. It also means the ability to face and accept the realities of life.
- Mental Health has two important aspects. It is both individual and social. The individual aspect defines that the individual is internally adjusted and able to control his emotions. He is self-confident, adaptable, and free from internal conflicts, tensions, and inconsistencies. He is not only internally adjusted but is also able to adjust with new situations, make relationships with the other member of the society, and is able to adapt himself with any kind of social circumstances.
- Mental Health also means being free from mental illness, stress, strains and tensions of life. It also refers to the state of tranquility, calmness and peace of mind.

- Mental health refers to such abilities which help the individuals to make decisions, such as– assuming responsibilities according to his/her capacity and having a state of mind of happiness; satisfaction and success in all his/her daily tasks; and living effectively with the other members of the society with socially desirable behaviour.

Thus, mental health is an important aspect of the personality, which is a very much essential quality for living a peaceful and successful life in the society. The society is changing in a rapid pace, and it is only through good mental health, an individual can easily adapt to the various dynamic circumstances and live a cherished life.

12.3.3 Characteristics of Mentally Healthy Individuals

By observing the nature of Mental Health, we can identify some of the characteristics of the mentally healthy individuals. These characteristics are as the following:

- Strong Personality: A mentally healthy individual has strong personality. He or she has a sound mind and body coordination, which reflects his or her behaviour.
- Adaptable and Resilient Mind: A mentally healthy person can adjust with any circumstances of life. He/she has a resilient mind through which he understands his own motives, needs, weaknesses, and strong points, and can easily adapt himself to his/her own merits and demerits.
- Well Regulated Emotions: A mentally healthy individual can perfectly control his emotions, feelings, fear, anger etc. He shows emotional maturity in his behaviour.
- Definite Philosophy of Life: A mentally healthy individual has his own ideals of life, as he/she tries to live a life according to his own philosophy of life.
- Ability to take decisions: A mentally healthy individual can take right decisions at the right time. He has the ability to make clear and constructive decisions whenever required.

- Variety of Interest and Creativity: A mentally healthy individual shows variety of interests in different fields and produce creative ideas, thoughts, and objects with the help of his creative thinking. He does not want to accept the regular and conventional thinking and ideas but shows some unique talents in his behaviour.
- Self Confidence: Mentally healthy individual is self confident in his actions. Whatever work he/she is assigned with, he/she does it with confidence.
- Good Interpersonal Relationship: A mentally healthy individual has good interpersonal relationship with the other members of the society. The person shows a sign of maturity in his or her behaviour.
- Insight into his/her own conduct: The mentally healthy individual has deep insight into his/her thinking, feeling, and actions. He knows his capacity or ability, and work accordingly.
- Positive and Optimistic: A mentally healthy individual shows a good sign of positivity in his behaviour. The person is more optimistic towards life, and he lives a satisfying, successful and happy life.

12.3.4 Components / Factors of Mental Health

Mental Health is influenced by a variety of factors. Due to various factors, different persons show variety of mental health. If some people are normal, others are aggressive, and some are fearful etc. To study the good mental health condition of an individual, we have to study some of the important factors on which a person's mental health depends. These are as follows:

- Hereditary Factors: Hereditary factors are the founding stones for personality development. The hereditary traits are quite prominent in each individual, and mental strength or illnesses can be rightfully traced from hereditary sources like intelligence, appearance, growth and certain physical and mental diseases. Though environment plays a prominent role in the growth and shaping of an individual, heredity shows a profound impact on

each individual's personality and outlook. In addition, heredity shows a direct influence on various mental illnesses running from generation to generation in a family. In some severe situations with a very stressful life, various mental illnesses with genetic background shows up in particular individuals and these issues should be tackled with a thorough research on the hereditary background of particular families. As such, to understand the mental health of a person, apart from the environmental factors, hereditary factors should also be taken into consideration.

- Physical Factors: Physical health and mental health are the two sides of the same coin. These are the two attributes of a personality. Research studies prove that good and robust physical health has got a direct influence on the mental health of a person. A good physical condition assists in more mental alertness, and the person becomes enthusiastic towards life. Good physical condition increases motivation to learn new things and adaptability to new situations. Likewise, poor physical condition affects mental health adversely by giving rise to inadaptability to new situations, personality difficulties apart from mood swings, depression and anxieties. To rightfully assess the mental health of an individual, we can clearly express that physical factors play a very crucial role in any individual.
- Social Factors: Apart from hereditary and physical factors, social factors also influence an individual from his birth till death. Society is the most important agency of socialization of a child. The child learns various behaviours, manners and values while living in the society. Society directly influences the personality or the total behaviour of the individual. It is the social environment, which shapes the knowledge, skills, attitudes, values etc. of an individual. The society also fulfils the various needs of a person in his different developing stages. It affects the physical and mental health of the child. It has been observed that the society, which provides conducive environment to the child's growth,

produces children with sound mental health. The society, which cannot fulfill the needs and desires of the pupils, show children with higher maladjustments and mental illnesses.

- Satisfaction of basic childhood needs: It has been observed from the above discussion that the needs and desires of children play an important role in the development of mental health of an individual. When the basic needs of children like love, affection, security etc. are given in an effective manner, their mental conditions seems to be normal and healthy. Likewise, when the basic needs are not satisfied during childhood, the personality becomes timid, fearful, aggressive, tense, anxious, and pitiful. Therefore, a great role have to be played by the parents, the school, and the society to fulfill the basic psycho-physical needs of the children so that they become well adjusted and balanced personality in the future.



LET US KNOW

- Mental Health has four components. They are hereditary factors, physical factors, social factors, and satisfaction of basic childhood needs.
- Some of the characteristics of a mentally healthy individual are strong personality, adaptability, and resiliency of the mind, positive mental attitude and an optimistic mind.
- The nature of mental health include aspects like balance between physical and mental health as well as the capacity of an individual to interact with one another in the way which promotes the feeling of well being etc.

12.4 CONCEPT OF MENTAL HYGIENE

Previously, mental illness was considered a curse, and no one was able to know its root causes. However, due to the developments of scientific knowledge and research, we have come to know the various forms of mental

illness, its symptoms, and its root causes. To lead a happy, satisfying and successful life, we have to maintain certain principles. These principles not only make us happy but also help to prevent the mental disorders or maladjustments. Mental hygiene deals with the principles of living, which promote the development of wholesome and a balanced personality.

The book titled 'A Mind That Found Itself' authored by Clifford Beers in 1908 was the trendsetter of the movement related to mental hygiene. Being under immense stress and tension, Beers tried to commit suicide, but he was subsequently rescued and his mental illness was treated. After recovery, he penned down this book and briefed all his experiences during his mental illness and during his treatment. This book revolutionized the concept of mental hygiene and generated awareness amongst the people towards preserving mental health. The year 1908 saw the establishment of the Society for Mental Hygiene, and eleven years later in the year 1919, the National Society for Mental Hygiene was formed which subsequently grew up into International Committee for Mental Hygiene.

Mental hygiene is the science, which is concerned with preserving good mental health and avoiding mental illness or disorders. Mental hygiene is concerned with the mental phenomena. It is a continuous process as it has a lengthy span from birth till death. Mental hygiene basically aims at providing a sound and good mental health and curing mental disorders. As such, there is an intimate relationship between mental health and mental hygiene. Mental hygiene is considered the means to achieve the end i.e. good or sound mental health. It mainly deals with preventing, curing mental illness, and preserving good mental health.

12.4.1 Definitions of Mental Hygiene

To understand the concept of mental hygiene, we have to go through the various definitions of mental hygiene given by the psychologists from time to time. Some of the definitions are outlined below:

- As per Dictionary of Education by Carter. W. Good, "Mental Hygiene is the establishment of environmental conditions,

emotional attitudes and habits of thinking that will resist an onset of personality maladjustments. It is the study of principles and practices in the promotion of mental health and prevention of mental disorders."

- According to American Psychiatric Association (1971), "Mental Hygiene consists of measures to reduce the incidence of mental illness through prevention and early treatment and to promote mental health."
- According to D. B. Klein, "Mental Hygiene is the study of the ways and means for keeping the mind healthy and developing."
- Encyclopedia of Modern Education states, "The main aim of mental hygiene is to check emotional disintegration and imbalance of the individuals. It also makes a man efficient in discharging his duties."
- According to Crow and Crow, "Mental Hygiene is a science that deals with human welfare. It pervades all fields of human relationship."
- According to Skinner, "Mental Hygiene has to do primarily with the development of more wholesome human relationship."
- According to Drever James, "Mental Hygiene means investigation of the laws of mental health and the taking of measures for its preservation."

Thus, from the above definitions, it has been observed that mental hygiene is the science, which is concerned with the preservation of a good mental health. The main function of mental hygiene is to know the root causes of mental disorders, to suggest precautions to avoid such disorders, and to suggest different measures to cure these disorders and live a healthy life. It deals with the development of a balanced personality of an individual.

12.4.2 Purposes of Mental Hygiene

Mental Hygiene is the science, which mainly aims at preventing mental disorders as well as curing mental illness or

maladjustments so that the mental health of an individual can be preserved. Though the main purposes of mental hygiene are three fold like—preventing, curing, and preserving, but the ultimate aim is to provide mental well-being, satisfaction and assistance to a person so that he/she can lead a peaceful and happy life. The main purposes of mental hygiene are highlighted below:

- To find out the various causes of mental disorders or maladjustments of individuals whether they are personal or social.
- To understand the deep-rooted needs, drives, motives, desires etc. of an individual, which are considered the regulator of variety of behaviours.
- To suggest the ways and means of how to control emotional disturbances.
- To suggest the ways for relieving frustrations and tensions and, to adopt some measures of adjustment mechanism.
- To provide ways for curing mental illness and disorders.
- To suggest means for the rehabilitation and readjustment of the mentally maladjusted persons.
- To provide some measures to maintain a balanced mental health.
- To provide some measures to develop healthy human relationships or to develop inter personal relationships.
- To develop some habits and attitudes to lead a healthy mental and physical life.
- To develop certain skills in an individual to adjust with various circumstances of personal and social life.

12.4.3 Mental Hygiene and Education

All progressive educators or psychologists realized that there is a close relationship between mental hygiene and education. Both mental hygiene and education aim to help the individuals to develop their personalities to the fullest and help them to adjust satisfactorily to various social situations. Mental Hygiene assists in developing a sound mental health which is the first criterion for any type of

education. If a person is not mentally healthy, he/she cannot concentrate on studies, and therefore, we can infer that sound mental health is essential for learning. Mental health aims to develop a perfect mental health and prevent maladjustments. As such, mental health and hygiene are intricately associated and are prime components of education, and without mental hygiene, the goals of education cannot be realized. Mental hygiene is related with various aspects of education, which are enumerated below:

- **Aims of Education:** The aims of education are all round development of human personality so that the person can effectively adjust with various circumstances of personal and social life. The aim of education is to help the child to develop fully his/her physical and mental growth. Similarly the aim of mental hygiene is to provide an opportunity to the individual to develop his/ her potentialities to the maximum and attain full growth of physical and mental health. So, we can rightly say that the basic aim of both mental hygiene and education are the same.
- **Curriculum:** Curriculum is the means through which educational aims are realized. Curriculum is not only the list of subjects taught in school or other educational institutions but it is the total experiences that the child acquires in the school. The curriculum should include those subjects which will broaden the horizon of knowledge of the students. It should develop his potentialities to the maximum and pave him or her to easily adjust with any type of situations. Curriculum should develop the total personality of the students. Mental hygiene also helps to know the potentialities of the individuals, his/ her strength or weaknesses as well as help him/her to develop physically and mentally as a matured human being. Therefore, the knowledge of mental hygiene like principles of keeping good physical and mental health, skill of interpersonal relationships, knowledge of emotional control, adjustment mechanism etc should be a part of the curriculum. The curriculum should be flexible and adjustable to the needs of

the pupils at every stage and should be dynamic with the changing social conditions of the society.

- **Method of Teaching:** Methods of teaching are the tools or devices through which the aims of both i.e. education and mental hygiene are realized. By application of efficient methods, some good habits and attitudes can be developed in children so that he/ she can develop mental and physical growth and attain maturity. Skillful method of teaching also helps in reducing tensions and conflicts among children and thereby helps in adjustment of children in different situations of life. By application of proper methods, the teacher can find out the root causes of various behavioural problems of students and should provide suggestion for eliminating them from their behaviour, which in turn helps in attaining a matured behaviour.
- **Discipline:** Discipline is something which cannot be imposed from outside but it should be inculcated from within, thereby making the person systematic and organized in behaviour and actions. Discipline is necessary to achieve the goals of life. Mental Hygiene assists in self discipline where the child knows to express fuller freedom of his feelings and inner expressions as well as control his/her unacceptable desires, feelings, thoughts etc. Mental Hygiene teaches to live a life of freedom and full expression of his/her personalities to a socially desirable end.
- **Role of Teacher:** Teacher is the person who acts as a friend, philosopher and guide to a child. Teacher plays an important part in the total process of education. Mental hygiene helps a teacher not only to develop a sound mental health of their own but also to assist in developing the total personality of the students. Teacher also facilitate in adequate adjustment of pupils to the problems of life. Mental hygiene aids a teacher to understand the various problems of students and guide them to overcome the problems and lead a balanced life. It is the responsibility of the teacher to emphasize the harmonious

development of children so that they can contribute to the progress of the nation as well as welfare of the society.

Thus, from the above discussion, it was observed that mental hygiene and education are related with each other in different aspects. Both have a direct impact on each other and assist in the overall development of the personality.

12.5 WAYS FOR MAINTAINING HEALTH AND HYGIENE IN SCHOOL

The school is the second broader society to which the child is introduced after home. It is the most important agency of socialization for the child. The child acquires variety of knowledge in the school to prepare for his/her future life. The child spends six to seven hours a day in school. The school not only provides knowledge of different subjects but also fulfils the various needs of children in different stages of their development. Thus, the school provides numerous experiences to children in order to develop them physically, mentally, socially and emotionally. The school takes various measures to maintain the proper health and hygiene of students. They are discussed below:

- Firstly, the school environment should be conducive and free from fear, tension, and conflicts. It should be democratic and free from caste and creed, religious and socio economic conditions. The school should provide enough freedom so that the students can easily express their feelings and discuss their problems with the teachers.
- The school administration should be conducive to the mental health of the students. The educational policies and practices should encourage happiness and welfare of the students. The administrator can create an emotional climate in the school where a democratic relationship should be established among the administrators, teachers, students, parents and the non-teaching staff. This will help to provide for the all round development of the students in school.

- The school should encourage those activities, which will develop the psychophysical aspects of the personalities of the students. These activities include– meditation, games, sports, debates, essay writing, creative writings, scout and NCC etc. The teacher with various social urges and interest of the students should properly motivate all learning activities.
- The school should encourage active methods of teaching like learning by doing, play way, Dalton plan, project methods etc. This will encourage self-learning, creativity, motivation etc. in the students.
- The school should encourage a variety of subjects in the curriculum according to the varied interest of the students in different developing stages. The students should select the subjects according to their own choice.
- The library of the school should be well equipped with a variety of books. Some books should be related with health and hygiene of the students. The books should be according to the needs and interest of the students in their developing stages.
- The school should be equipped with guidance and counseling centres. The trained counselors must be appointed in these centres to discuss the various problems of the students and they should properly guide them according to their potentialities.
- The efficient, trained, and experienced teachers should be appointed in the schools. They should not be dictators but should act as a friend, philosopher and guide. The teacher should take care of the proper physical and mental health of the students.
- The school should organize remedial and tutorial teaching classes for the students. Student's learning problems and other related problems should be solved in the school itself.
- The school should organize field trips or educational excursions regularly to promote the physical and mental health of the students.
- The school should also give importance to organizing medical camps and to monitor the overall physical and mental health of the students.



CHECK YOUR PROGRESS

Q.1: What are the purposes of mental hygiene?

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Q.2: Elaborate on the concept of mental hygiene.

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Q.3: How is mental hygiene related with education?

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Q.4: Mention some measures to be undertaken by the school to maintain health and hygiene amongst the students.

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Q.5: What are the components of mental health?

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Q.6: Write two definitions of Mental Health.

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Q.7: Who introduced the concept of mental hygiene?

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12.6 PROMOTING MENTAL HEALTH AND HYGIENE

Mental health and Hygiene are interrelated, and they render a direct impact on the personality of an individual. Since birth, the effect of environment on the individual is very much pronounced, and it shapes the overall growth and development, which have an effect on the mental attitudes of each individual. Three of the most important environmental factors i.e. home, school, and society play a crucial role in the promotion of mental health and hygiene of a person. Apart from the hereditary factors, these environmental factors inculcate certain behavioural and emotional attitudes in the individuals.

12.6.1 Role of Home

It has been already mentioned that the home is the first agency of socialization for the child as it moulds its total personality since birth. It plays a crucial role in the formative years of each and every individual. The experiences he or she gathers during childhood leave a lasting effect on his/her mind. In other words, we can rightly state

that these experiences sow the seeds of future development of personality in each individual. For a proper physical and mental growth, the love and affection of the parents and other members of the family for their child is very essential. The environment should be so positive that the child can feel secure and can exchange feelings with the parents quite freely. The parents should deal with their children with love and enthusiasm, and not criticize and compare them with other children. Apart from these, the parents should give the required freedom to the child and should desist from overprotecting them so that their personality grows up without any hindrance. The parents will have to play a more important role by being cautious about not quarreling in front of the children and being too much anxious about their future. They should fulfill the legitimate needs of the children besides giving proper guidance and building up their self-confidence. Thus, a positive relationship between the parents and the child, intra-parental relationship, personality attributes of both the parents and caring attitudes etc. leave an indelible mark on the mental, physical, and academic side of a child's development. A healthy domestic environment provides a sense of emotional security thereby facilitating motivation during various developmental changes of the child.

12.6.2 Role of School

Apart from the family, the educational institutions render the second most important effect on the mental health and hygiene of a child/adolescent. The school with a conducive atmosphere for learning free from fear and tension plays a very important role in inculcating a positive mental attitude amongst the students. The teachers should instill confidence in the mindset of the children, and there should be an inter-personal relationship between the two entities with no biasness. As the mentor, he should instill the rightful attitude in the children so that they can face the realities of life in the future. The team spirit between all the students is quite important, and the

teachers have a large role to play in the growth of these healthy mental attitudes amongst the students. Freedom of expression in the children and inculcating varieties of interest in them are the added responsibilities of the teacher. The school should also organize special classes on human relations, and counseling cells should be organized regularly for proper assessment of each student of the school. Regular medical checkups should be organized by the schools to monitor the physical and mental health of the child. The school should also organize some psychophysical activities like meditation, games, sports, scouts and guides, and other recreational activities, which will develop the all round growth and development of the child. Self-discipline in the students should be inculcated by the schools through which, the students can become responsible citizens in future.

12.6.3 Role of Society

The role of the society on mental health and hygiene is one of the most important topics in the present scenario. With rapid industrialization and urbanization, the family environment is rapidly being fractured. With the emergence of nuclear families, family relationships are showing a downward trend in recent times. Though schools and other educational institutions play a very prominent role in the overall growth and development of the mental health and hygiene of the children, the environment in schools is not so stable with lack of adequate human resources and proper infrastructure.

In this context, the society should play a pivotal role in catering to various needs of the individuals for the proper development of mental health and hygiene of each individual. Apart from catering to various needs, the society should give freedom of expression to each person, and assist the individual so that he/ she can find out the right role he/ she has to play for the betterment and upliftment of the society and the nation. The society should also recognize the various talents of the individuals and provide them opportunities to

bring out their latent talents. It should also recognize the individuals as a member of the society and should entrust some responsibilities to them for the uplift of the society.



12.7 LET US SUM UP

- The ability to face challenges courageously without any sign of stress, strain, and conflicts with a happy mindset can be rightfully termed as a Good Mental Health. It is the ability to make a perfect balance in terms of thinking, feeling and doing.
- Mental health and physical health are the two indispensable parts of personality, which directly influence the overall development of an individual. The quality living of an individual manifests when his physical health and mental health work together in the same direction with a balanced way.
- Mental Health has two important aspects, the first one is individual and the later one is social. The individual aspect of Mental Health indicates that the individual is well adjusted internally and is free from internal tensions, stress and conflicts. He/she is self confident in his/her actions and decisions. Social aspects indicate that the individual is not only well adjusted internally, but he/she is able to adjust to any social situations and make good social relationships with others.
- Mental health is the ability to adjust satisfactorily with the changing situations of life. It is the ability through which the individual makes a perfect balance between his bodily and mental activities to achieve a common goal. It is a state of harmonious functioning of individual personality.
- Mentally healthy individuals have characteristics like strong personality, adaptable and resilient mind, well regulated emotions, definite philosophy of life, ability to take decisions, variety of interest and creativity, self confidence, good interpersonal relationship, insight into their own conduct, positive and optimistic etc.

- To study the good mental health condition of an individual, some of the important factors have to be taken into consideration like Hereditary Factors, Physical Factors, Social Factors and Satisfaction of basic childhood needs.
- Mental hygiene deals with those principles of living, which promote the development of wholesome and a balanced personality. The book titled 'A mind that found itself' authored by Clifford Beers in 1908 was the trendsetter of the movement related to mental hygiene.
- Mental hygiene is the science which is concerned with preserving good mental health and avoiding mental illness or disorders. Mental hygiene basically aims at providing a sound and good mental health and curing mental disorders.
- All progressive educators or psychologists realized that there is a close relationship between mental hygiene and education. Both mental hygiene and education aim to help the individual/s to develop their personalities to the fullest and help the person to adjust satisfactorily in various social situations. Mental Hygiene assists in developing a sound mental health, and a sound mental health is the first criteria for any type of education.
- Mental health and hygiene are intricately associated and without mental hygiene, the goals of education cannot be realized. Mental hygiene is related with various aspects of education like Aims of Education, Curriculum, Method of Teaching, Discipline, Role of Teacher etc.
- The school provides numerous experiences to children in order to develop them physically, mentally, socially, and emotionally. The school takes various measures to maintain the proper health and hygiene of students.
- Three of the most important environmental factors i.e. home, school and society play a crucial role in the promotion of mental health and hygiene of a person. Apart from hereditary factors, these environmental factors inculcate certain behavioural and emotional attitudes on the individuals.



12.8 FURTHER READING

1) Chauhan, S. S. (1992). *Advanced Educational Psychology*. New Delhi: Vikas Publishing House.
2) Fernandes, M. M. (2008). *Advanced Educational Psychology: The Psychology of the Learner*. Mumbai: Himalaya Publishing House.
3) Kuppuswamy, B. (2010). *Advanced Educational Psychology*. New Delhi: Sterling Publishers Pvt. Ltd.
4) Mathur, Dr. S. S. (2000). *Educational Psychology*. Agra: Vinod Pustak Mandir.



12.9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: The main purposes/aims of mental hygiene are,

- To find out the various causes of mental disorders or maladjustments of individuals whether it may be personal or social.
- To understand the deep rooted needs, drives, motives, desires etc of an individual which are considered as regulator of variety of behaviours.
- To suggest the ways and means of how to control emotional disturbances.
- To suggest the ways for relieving frustrations and tensions and adopt some measures of adjustment mechanism.
- To provide ways for curing mental illness and disorders.
- To suggest means for the rehabilitation and readjustment of mentally maladjusted persons.
- To provide some measures to maintain a balanced mental health.
- To provide some measures to develop healthy human relationships or to develop inter personal relationships.
- To develop some habits and attitudes to lead a healthy mental and physical life.

- To develop certain skills in an individual to adjust with various circumstances of personal and social life.

Ans. to Q. No. 2: Mental hygiene deals with the development of wholesome and a balanced personality. Mental hygiene is the science which is concerned with preserving good mental health and avoiding mental illness or disorders. It basically aims at providing a sound and good mental health and curing mental disorders. As such, there is an intimate relationship between mental health and mental hygiene. Mental hygiene is considered as means to achieve the end i.e. good or sound mental health. It mainly deals with preventing, curing and preserving good mental health.

Ans. to Q. No. 3: Mental hygiene and education aim to help the individual/s to develop their personalities to the fullest and help the person to adjust satisfactorily in various social situations. Mental Hygiene assists in developing a sound mental health and a sound mental health is the first criteria for any type of education.

Mental hygiene is related with various aspects of education such as Aims of Education, Curriculum, Method of Teaching, Discipline, Role of Teacher etc.

Ans. to Q. No. 4: Some measures to be undertaken by the school to maintain mental health and hygiene amongst the students are school environment should be conducive and free from fear, tension and conflicts, school administration should be conducive to mental health of the students through enforcement of policies and practices which encourage welfare and happiness of students, organizing activities which will develop the psycho-physical aspects of personalities of the students like meditation, games, sports, debates, essay writing, creative writings, scout and NCC etc. Besides schools should encourage active methods of teaching like learning by doing, play way, Dalton plan, project methods etc besides including variety of subjects in the curriculum according to the varied interest of the students in different developing stages. The library of the school should be well equipped with variety of books and school should

open counseling cells as well as organize remedial and tutorial teaching classes for students. The school should organize field trips or educational excursions regularly to promote the physical and mental health of the students and organize medical camps to monitor the overall physical and mental health of the students.

Ans. to Q. No. 5: Components or factors of Mental Health are hereditary factors, Physical factors, Social factors and Satisfaction of Childhood needs.

Ans. to Q. No. 6: Two definitions of Mental Health are:

a) According to World Health Organization, "Mental Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity."

b) According to Meninger, "Mental Health is the adjustment of human beings to the world and to each other, with a maximum of effectiveness and happiness."

Ans. to Q. No. 7: Clifford Beers in 1908 introduced the concept of Mental Hygiene. The book titled '*A mind that found itself*' authored by him was the trendsetter of the movement related to mental hygiene.



12.10 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q.1: What do you mean by mental health?

Q.2: Does any relationship exist between mental health and hygiene?

Q.3: Discuss the nature of mental health.

Q.4: Do you think that satisfaction of basic childhood needs affect the mental health of a person? Discuss briefly.

B) Long Questions (Answer each question in about 300-500 words)

Q.1: Do you think that physical health affects the mental health of a person? If yes, justify your answer.

Q.2: Discuss the characteristics of a mentally healthy individual.

Q.3: Discuss the role of family, school and society for the promotion of mental health and hygiene in children.

Q.4: Discuss the ways and measures undertaken by the school for maintaining good mental health among the students.

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UNIT 13: ADJUSTMENT MECHANISMS

UNIT STRUCTURE

13.1 Learning Objectives

13.2 Introduction

13.3 Meaning of Adjustment

- 13.3.1 Definitions of Adjustment
- 13.3.2 Characteristics of Adjustment

13.4 Characteristics of a Well Adjusted Person

13.5 Methods of Adjustment

13.6 Concept of Maladjustment

- 13.6.1 Causes of Maladjustment
- 13.6.2 Preventive Measures of Maladjustment

13.7 Let Us Sum Up

13.8 Further Readings

13.9 Answers to Check Your Progress

13.10 Possible Questions

13.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- explain the meaning of adjustment from psychological point of view;
- describe the adjustment process, characteristics of a well-adjusted person;
- explain the methods of adjustment;
- discuss the concept of maladjustment and explain the causes of maladjustment; and
- provide the preventive measures of maladjustment.

13.2 INTRODUCTION

Adjustment of the organism to the changing environmental conditions is a subject matter of Psychology. Life is nothing but adjustment to thousand different situations. Psychological adjustment has received an increasing

amount of attention with the development of interests among the psychologists in studying human behaviour, personality development, situations producing frustration, conflicts, etc. The nature of adjustment is unique to each individual in terms of his personality, inner needs, strains, and conflicts. This unit will introduce you to the meaning, nature and definition of adjustment, and adjustment mechanism.

13.2 MEANING OF ADJUSMENT

The primary purpose of education is to train children for life's personal, social, and economic problems. If we examine the various activities of an individual's life, then we find that most of them involve adjustment of the individual to his vocational, social, and economic problems. The process of adjustment starts right from the birth of the child and continues until his death. The concept of adjustment is as old as the human race. Systematic emergence of this concept starts from Darwin's theory of evolution. However, in his terms, it is not adjustment but adaptation. The organic adaptation became more and more complicated when physical and organic structure of creature became more and more complex. The species that could not make a good adaptation with the environment disappeared from the Earth. Lower animals only have to adapt with the geographical and climatic environment. However, it is not sufficient with humans. Man's adjustment works in geographical, social, physical, mental, and financial levels. Therefore, the adjustment capability of the human race is much more than that of any other species.

13.3 ADJUSTMENT PROCESS

The physiologists describe adjustment as an interaction between the environment and organic factors. However, in Psychology it is used in a broad sense. Due to stress and pressure of society upon an individual, he shows his own reaction to the environment. Those reactions may be physical or mental but they keep balance between the individual and his surroundings. This is what we call adjustment in psychology. The environment and social

pressure may be external or may come from within a man. For example, if we look into the life of a child, we find that he has to follow certain beliefs and sets of values, which the family follows. His personality develops in the continuous process of interaction with his family environment. There are other demands, which may be termed as internal like hunger, water, oxygen, sleep, etc. If we do not fulfill these internal demands, we feel uncomfortable. With the development of the child, these physiological demands go on increasing and become more complex. These two types of demands sometimes come in conflict with each other, and as a result, adjustment becomes a complicated process.

Again, at the time of birth, a child is fully dependent on others. But, gradually when he become older, he applies his power of perception, sensation and conception and gain better knowledge of his surroundings. Then he starts thinking about each matter he comes across. Development in the thinking process leads him to abstract thinking, because of which he formulates idea on non-existing things.

At times, a child may face a situation when his inner and outer requirements work in opposite directions. Then, problems arise in his life. If the child can solve the problem in a socially approved way, he is termed a well-adjusted child. On the contrary, if he tried to solve it by adopting some anti-social means, then the child is termed unadjusted child.

13.3.1 Definition of Adjustment

The following are some of the definitions of adjustment–

- A. S. Gates and A. T. Jersild observed, “Adjustment is a continual process by which a person varies his behaviour to produce a more harmonious relationship between himself and his environment.’’
- According to James C. Coleman, “Adjustment is the outcome of the individual’s attempts to deal with stress and meet his needs; also, his efforts to maintain harmonious relationships with the environment.’’
- According to H. C. Smith, “A good adjustment is one which is both realistic and satisfying. At least in the long run, it reduces to

a minimum frustration, the tension and anxieties, which a person must endure.''

13.3.2 Characteristics of Adjustment

From the above definitions, we can sum up the characteristics of adjustment as the following:

- Adjustment helps us to keep balance between our needs and capacity to meet these needs.
- Adjustment implies changes in our thinking and the ways of life, in meeting the demands of the situation.
- Adjustment gives us the ability and strength to bring desirable changes in the state of our environment.
- Adjustment is physiological as well as psychological.
- Adjustment is multidimensional.
- Adjustment brings us happiness and contentment.

13.4 ADJUSTMENT MECHANISMS

Now you are familiar with the concept of adjustment. Let us now discuss adjustment mechanism. Every individual adopts some common ways to defend or escape from conflicts and frustrations. Through these ways, the individual maintains the balance of his personality in the society. These ways are known as adjustment mechanisms. Chauhan (1978, p 427) defines adjustment mechanism as “any habitual method of overcoming blocks, reaching goals, satisfying motives, relieving frustration, and maintaining equilibrium.” These mechanisms are used by normal, psychoneurotic and psychotic people and they are also known as ‘Defence mechanism’.

The Defence mechanisms are used to protect the person’s self-esteem against dangers. They defend the person against anxiety and frustration, and increase satisfaction in the process of adjustment. But in using these mechanisms, the individual distorts reality in one way or the other because escaping from anxiety or frustration involve distortion of his impulses and he is deprived of accurate self knowledge. In fact, there is self-deception underlying all defence or adjustment mechanisms.



LET US KNOW

- Systematic emergence of the concept of adjustment starts from Darwin's theory of evolution.
- Adjustment process may be discussed from two points of view. Physiological and psychological.
- From physiological point of view, adjustment is a process of interaction between environment and organic factors.
- From psychological point of view, adjustment is the reaction showed by individual to keep balance between stress and pressure of society upon him.
- Adjustment may be external as well as internal.
- A well-adjusted person accepts normal amount of frustration, acts rationally, and makes sincere effort to reach his goal.

13.5 SOME COMMON ADJUSTMENT MECHANISM

Psychologists have listed certain adjustment mechanisms, which are used by a majority of the people in the constant struggle for their survival in the environment. Some of them are discussed below.

- **Denial:** Denial is the simplest type of adjustment mechanism used by both children and adults. It is simply denying the facts, which create conflict in the mind. For example, if children are busy in playing and parents call them to study, they pretend that they are not listening. Later on if the parents ask why they do not come, they say that they heard nothing. Actually, they did not allow penetrating into their consciousness that had been said by their parents. Adults also use this mechanism when they are not prepared to admit their failures in day-to-day life. In fact, the percentage of denial is higher among the adults than the children.
- **Aggression:** Often the reaction to frustration takes the form of aggression behaviour. It is proverbially stated that the bad worker blames himself for failure. It means that he wants to transfer his

failure to the tools. Commonly it is observed that when people are scolded in office for their inefficiency, they cannot do anything in the office but become angry with the children at home. When in an aggressive mood, sparked off by frustration, an individual can directly or indirectly launch attack on others, but in some cases, this wrath turns in upon themselves rather than on other people or objects. They take to beating their heads with their hands or banging it into the nearest wall, while the more disturbed commits suicide.

- **Compensation:** In compensation, a person attempts to cover his weakness in one are by exhibiting strength in another area. This kind of behaviour is so many in categories that it is very difficult to describe them. Compensatory behaviour is very clearly visible in childhood. Children are very much dependent on others because of their helplessness. Therefore, they take recourse to compensatory behaviour in their adjustment. They fulfill this need by quarrelling, teasing and making noise, and experience the feeling of self-satisfaction.
- **Identification:** Another way to coping with frustration is to identify himself with some successful person. This results in the unconscious taking over and transfer to oneself of various elements of other. Such elements may include thoughts, tasks, behaviour mechanism, or character traits and feelings. Adolescents identify themselves with some political leaders, youth leaders or actors and actresses and attempt to acquire their characteristics. To hide his own failure, a student may identify himself with his father and talk about his success. Thus, the person tries to cover up his own shortcomings and incompetencies in his mind.
- **Rationalization:** When a person fails to achieve success in one work, he feels guilty and becomes shy. In order to do away with this feeling of guilt, to prove the appropriateness of his behaviour, and to describe the cause of his failure, he tries to console himself with logical arguments. There is a story that a jackal could not jump to the height where the grape was and failed to obtain it, then he said to himself that the grapes were sour and not of a good taste, and leaves

it. This is a clear example of rationalization. Many students, who fail in examinations, blame the question paper as very tough or blame the question-setter. Rationalization is the most popular adjustment mechanism, which is used, by both children and adults in their daily life.

- **Projection:** When an object or a situation defeats a person, he tries to hide his weakness – that is his failure. This is a trick by which a person makes another person responsible for the failure he suffered. For example, many times the student who fails in the examination says that it is due to the teacher who was teaching him. If he would have been taught by some other teacher, he would have done better in the exam. In this way, mental tension and frustration can be minimized by making some other person responsible for it. However, carried to the extreme, projection is the mark of the behaviour disorder paranoia. The paranoid project his own hostile feelings about others into a whole system of thinking in which he feels that others are out to get him.
- **Repression:** In Freudian theory of personality, repression is one of the most important defence mechanisms. It is otherwise called 'motivated forgetting'. It is an attempt made by the individual to push into the unconsciousness, those experiences and thoughts which are in conflict with his moral standard or which are painful to consider. When they are repressed into unconscious level, then the person forgets the painful experiences.
- **Daydreaming:** Daydreaming or fantasy is an adjustment mechanism in which a person resolves conflicts by simply fleeing them. If man fails to fulfill his desires in his actual life and if his goals are not reached, he, in order to save himself from frustration, takes the help of absurd imagination. This is called daydreaming. It is a better way to forget the misery, pain, and guilt of practical life. Daydreaming is very frequent and natural with adolescents. Creative thinking may originate from daydreaming. If daydreaming becomes excess, man forgets realities of life and loses his efficiency in work.

- **Negativism:** Negativism is a mechanism by which an individual draws the attention of other people. It is partly a defence and partly an escape mechanism. The person develops strong and irrational resistance in accepting the suggestions of others. A girl became rebellious because she was always blamed for the mischief caused by her five brothers and sisters. She was punished for the wrongs of others. So, she eventually became negativistic to any authority.
- **Regression:** People sometimes try to cope with a problem by regressing to childish or primitive ways of behaving. Regression is often seen in children 4-5 years old, because at this age, they own increasingly complex set of frustrations. It may happen because the arrival of a new baby or problems involved in making school adjustments. In regression, the child frequently reverts to baby talk and all sorts of 2-year-old behaviour. Adults also sometimes revert to childish behaviour when they are unable to find an 'adult' way of approaching a problem.
- **Malingering-pretending illness:** When a person pretends to be sick and uses it to avoid an embarrassing situation, he is said to be malingering. It is most commonly used by children to stay away from school whenever they have a test for which they were unprepared or they failed to complete a home assignment. To save oneself from humiliation in class in front of the classmates, a boy might develop stomach pain or some such sickness so as to elicit sympathy from mother and avoid going to school. It is a kind of 'psychosomatic' symptom. A wise mother should not encourage this tendency. This tendency is known as motivated sickness as it occurs only when a child a child is faced with an inconvenient situation. If a mother allows her child to stay at home, then this malingering tendency may reoccur frequently.
- **Sublimation:** The term sublimation was first used by Freud to refer to an unconscious process by which a sexual impulse or energy is changed direction, so as to express itself in some non-sexual and socially acceptable way. An individual may make the personality dominant or remove many of his shortcomings through sublimation.

In Psychology, it is a mature type of defence mechanism where the socially unacceptable impulses or idealization is unconsciously transformed into socially acceptable actions or behaviours, possibly resulting in a long-term conversion of the initial impulse. For example, a person with aggressive behaviour may join the army to make his behaviour socially approved.

13.6 CONCEPT OF MALADJUSTMENT

Maladjustment is the inability of individuals, members of a family and community to coordinate with other individuals, family members, and the members of another community on differences and conflicts with socio-political and economic reasons or ideologies.

Maladjustment refers to disharmony between the person and his environment. Contrary to adjustment, maladjustment represents a condition or a state in which one feels that one's needs are not fulfilled, and he has been a failure in establishing harmony with his self and the environment.



CHECK YOUR PROGRESS

Q.1: Define adjustment.

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Q.2: What are the characteristics of adjustment?

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Q.3: What is adjustment mechanism?

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Q.4: Why adjustment mechanisms are called defence mechanisms?

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Q.5: What is sublimation? Why is it known as the best kind of mechanism?

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Q.6: What is maladjustment?

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13.6.1 Causes of Maladjustment

The following are some of the causes of maladjustment.

- Hereditary causes: Because of inherited defective mental set-up, physiological structure, etc.
- Faulty method of teaching: Faulty method of teaching does not motivate students. The lesson becomes dull and the students begin to hate the very process of education. It creates emotional tension, which leads to mental illness.
- Strict discipline: Some schools impose strict discipline. Such schools are just like jails and the teachers are just like jailors. Consequently, the students are always suffering from fear and worry.

- Lack of equipments: In some schools, there is a lack of furniture and proper equipments. Overcrowded classes and poor facilities lead to frustration and mental tension.
- Lack of guidance and counseling: The mastery over the content and subject matter only, without caring for interest of students causes maladjustment. No guidance is provided for various areas at different levels. Students become confused, frustrated, and become maladjusted.
- Mass media: Now a day, children are exposed to mass media, explosion of knowledge, adult issues, etc. through mass media since their childhood. If the child witnesses certain programmes in mass media, which are not meant for them, may lead to maladjustment.
- Social laws and bindings: The social laws and legal bindings are the most common sources of frustration in one's life. Similarly, restrictions imposed by parents, teachers, and other groups are the common sources of maladjustment.
- Lack of recreational facilities: Children who do not get proper recreational facilities after school may get engaged in some anti-social activities.
- Bad company/neighbourhood: Neighbourhood is an important conditioner of child's behaviour. Many of our youngsters develop delinquencies because certain patterns of behaviour such as lying, stealing, obscene talk, promiscuous sex interest, etc. are seen in the neighbourhood.
- Gibbon says that children coming from homes that have been broken due to death, divorce, desertion, separation, etc., are often maladjusted in their behaviour. Such children feel insecure and become maladjusted.
- Poverty: With the tremendous growth in population, it is extremely difficult for parents to provide even the basic needs and necessities like food, clothing, shelter, etc. to their children. It invariably results in greater degree of frustration and hostility amongst them.

- If parents are over-possessive, highly authoritative, unrealistic in their expectations, incompatible and abusive, it will have an adverse effect upon their children. When the psychological needs are not met, children get frustrated and develop problems like nail biting, fear of the dark, lack of self-confidence, etc.
- The individuals who are physically, mentally, and visually handicapped, react abnormally to the situation when they cannot score academically compared to their peers. Therefore, they may develop an inferiority complex. Finally, they isolate themselves from others and indulge in daydreaming.

13.6.2 Preventive Measures of Maladjustment

The following are the preventive measures that can be adopted.

- Proper encouragement: Parents and teachers should speak daily with the child about his daily activities so that the child can begin to learn the principle of socialization.
- Proper appreciation: Parents and teachers should directly praise the child for the good things he has done.
- Delegating responsibility: Parents and teachers should assign some responsibilities to the child. This responsibility should involve tasks, which the child perceives as real and important.
- Provision of entertainment: There should be provision of entertainment facilities like parks, sports clubs, amusement places, theatres, museums, etc, to children. They should be encouraged to play with their peers.
- Testing: Refer the child for special education testing. In some instances, maladjusted children are eligible for special education services.
- Pattern of relaxation: The teachers should set a pattern of calmness. Yoga, meditation, stress management courses play a very important role in preventing maladjustment.

- Informing progress: The teacher should inform the child of the progress he is making.
- Timely help: The teachers should help the child when he needs it, and not only when he asks for it. If the teacher is wise enough to know when the child requires help, he may be able to help him avoid many traumatic experiences related to failure.
- Moral education: School should provide moral education through various methods. Self-confidence, co-operation, sharing and caring, are the values that can be inculcated through co-curriculum programmes.
- Guidance and counseling: If the teacher works as a guide and a counselor for the parents and children, many of the negative situations can be made positive which are beneficial to students.



13.7 LET US SUM UP

- The concept of adjustment is as old as the human race. Systematic emergence of this concept starts from Darwin's theory of evolution.
- Adjustment can be discussed from physiological and psychological point of view.
- Adjustment may be external as well as internal.
- Different psychologists define adjustment from their own point of view.
- From these definitions, we can sum up the characteristics of adjustment as–
  a) Adjustment helps us to keep balance between our needs and the capacity to meet these needs.
  b) Adjustment implies changes in our thinking and way of life to meet the demands of the situation.
  c) Adjustment gives us the ability and strength to bring desirable changes in the state of our environment.
  d) Adjustment is physiological as well as psychological.
  e) Adjustment is multidimensional.
  f) Adjustment brings us happiness and contentment.

- A well-adjusted person has certain characteristics.
- Sometimes, some conditions arise when a man fails to solve his problems. This creates tensions and frustrations in him, which terrifies the ego. When such a situation arises, a man displays adjustment mechanisms and tries to get rid of tension and frustration. These mechanisms are known as the methods of adjustment and are called **'defence mechanisms'.**
- There are various kinds of defence mechanisms.
- Maladjustment refers to disharmony between the person and his environment. Contrary to adjustment, maladjustment represents a condition or a state in which one feels that one's needs are not fulfilled and he has been a failure in establishing harmony with his self and the environment.
- There are various causes of maladjustment.
- Maladjustment can be prevented by taking some measures like proper encouragement, proper appreciation etc.



13.8 FURTHER READING

1) Charles. E. Skinner. (ed). (1964). *Education Psychology*. New Delhi: Practical Hall of India. Ltd.

2) Dandapani, S. (2000). *A Textbook of Advanced Educational Psychology*. New Delhi: Anmol Publication Pvt. Ltd.



13.9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: A. S. Gates and A. T. Jersild observed, "Adjustment is a continual process by which a person varies his behaviour to produce a more harmonious relationship between himself and his environment." (students can give any of the other definitions also)

Ans. to Q. No. 2: The characteristics of adjustment are as follows:

- Adjustment helps us to keep balance between our needs and the capacity to meet these needs.

- Adjustment implies changes in our thinking and way of life to the demands of the situation.
- Adjustment gives us the ability and strength to bring desirable changes in the state of our environment.
- Adjustment is physiological as well as psychological.
- Adjustment is multidimensional.
- Adjustment brings us happiness and contentment.

Ans. to Q. No. 3: Sometimes, some conditions may arise when a man fails to solve his problems. This creates tensions and frustrations in him, which terrifies the ego. When such a situation arises, a man displays adjustment mechanisms and tries to get rid of tensions and frustrations. Almost all people use these mechanisms. All mechanisms are used to protect and enhance the person's self-esteem against danger. They increase satisfaction and help in the process of adjustment.

Ans. to Q. No. 4: Adjustment mechanisms are also called defence mechanisms because it defends the ego from missing the balance. These mechanisms do not let the ego and personality to be endangered by frustration.

Ans. to Q. No. 5: Sublimation is the most advanced, highly developed, and a constructive mechanism. Through the use of its operation, the energy of personality or socially intolerable impulses and drives are successfully directed into consciously acceptable channels. Their direction and aim thus become redirected towards substitute goals. It contributes to character and personality development and plays an important role in the prevention and resolution of emotional conflict, anxiety, and in the maintenance of emotional and mental health. Sublimation supplies an outlet for blocked and intolerable drives. Allport defines sublimation as "a device by which an individual's anti-social impulses are made socially acceptable". Sublimation is healthful. All divisions of the psyche, Id, Ego, and the Superego, work in concert with each other in the mechanism. Therefore, it is known as the best adjustment mechanism.

Ans. to Q. No. 6: Inability of an individual to sync with other individual and with the society is known as maladjustment. Maladjustment refers to disharmony between the person and his environment. Contrary to adjustment, maladjustment represents a condition or a state in which one feels that one's needs are not fulfilled and he has been a failure in establishing harmony with his self and the environment.



13.10 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q.1: What is adjustment? Give a comprehensive definition of adjustment.

Q.2: What are the characteristics of a well-adjusted person?

Q.3: Define adjustment mechanism. What are their main features?

Q.4: What is repression? How does it operate?

Q.5: Explain projection, daydreaming and rationalization with examples.

Q.6: Explain the concept of mal-adjustment.

Q.7: Describe any five causes of mal-adjustment.

B) Long Questions (Answer each question in about 300-500 words)

Q.1: What is meant by adjustment mechanism? Explain which measures can be taken by the school to prevent a child form mal-adjustment.

Q.2: "Defence mechanisms are not harmful so long one uses them not very often. Excessive indulgence would make an individual incompetent to time in reality". Explain the statement.

Q.3: Discuss the causes of mal-adjustment of a child in a school.

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UNIT 14: MEANING AND NATURE OF APTITUDE AND ITS MEASUREMENT

UNIT STRUCTURE

14.1 Learning Objectives

14.2 Introduction

14.3 Meaning of Aptitude

14.4 Definitions of Aptitude

14.5 Nature of Aptitude

14.6 Concept of Aptitude Tests

14.7 Types of Aptitude Testing

14.8 Utility of Aptitude Tests in the Field of Education

14.9 Let Us Sum Up

14.10 Further Readings

14.11 Answers to Check Your Progress

14.12 Possible Questions

14.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- define aptitude;
- describe the nature of aptitude;
- classify different types of aptitude tests;
- explain different types of aptitude tests; and
- discuss the utility of aptitude tests in the field of education.

14.2 INTRODUCTION

In your everyday life, you may come across many individuals who excel over others, under similar circumstances, in acquiring certain knowledge or skills in certain specific fields, making them more efficient and capable as compared to others. Such individuals are said to possess certain specific abilities or aptitude in addition to their intellectual abilities, which helps them to achieve success in some specific occupations or

activities of their own interests. In this unit, we will discuss the meaning and nature of aptitude as a psychological attribute, and its testing and utility in the field of education.

14.3 MEANING OF APTITUDE

Aptitude is a special skill or ability in a person to perform a particular task in a better way. It refers to those qualities characterizing a person's way of behaviour, which serves to indicate how well he can learn to meet and solve certain specific problems. It is a part of competency to do certain works at a certain level. It is an inherent or acquired ability of an individual, which helps in learning or understanding. It is the acquired or natural ability (usually measureable with aptitude tests) to learn in a specific area or discipline. Aptitude is expressed in interest, and is reflected in the current performance, which is expected to improve over time with the help of training. Aptitude is not dependent on previous learning.

Therefore, aptitude may be described as a special ability or specific capacity, distinct from the general intellectual ability, which helps an individual to acquire the required degree of proficiency or achievement in a specific field. The knowledge of an individual's aptitude helps us to predict his/her future success in a particular field of activity, with appropriate training and experience. For example, when we say 'X' has an aptitude for music we mean that his/her present condition or ability reveals that there is possibility of showing proficiency in music with proper training to excel in the present as well as in future.

14.4 DEFINITIONS OF APTITUDE

The psychologists have given a number of definitions from time to time. Some of them are given below:

- In *Aptitudes and Aptitude Testing*, Bingham (1942) provides the definition of aptitude given in Warren's Dictionary of Psychology (1934) as, "a condition or set of characteristics regarded as symptomatic of an individual's ability to acquire with training some

(usually specified) knowledge, skill or set of responses such as the ability to speak language, to produce music etc., and bases his theory on it." Bingham further states that aptitude is a measure of probabilities of success of an individual with training in certain type of situations. Therefore, aptitude is something more than ability. It is ability plus suitability for performance. For example, a person may be a good scholar, but not necessarily a good teacher.

- Again Freeman has defined the term aptitude as, "a combination of characteristics indicative of an individual's capacity to acquire (with training) some specific knowledge, skill, or set of organized responses, such as the ability to speak a language, to become a musician, to do mechanical work." (Freeman, 1962).
- Guion believes that "aptitude for any line of work can be considered in terms of three major categories: (1) intellectual abilities, (2) physical traits, including psychomotor abilities, and (3) motivational traits, interest, aptitudes, or temperament needed for persistent and attentive effort." (Guion, 1965).
- Harriman in his *Dictionary of Psychology* defines aptitude as "a capacity in any given skill or field of knowledge, on the basis of which a prediction may be made regarding the amount of improvement which further training might affect" (Harriman, 1952).
- Thorndike and Hagen aptly stated, "Aptitude depends on unknown proportions, on the genetic characteristics of the individual and his whole life history of physical surroundings and previous learning."
- According to Traxler, "Aptitude is a condition, a quality or a set of qualities which is indicative of the probable extent to which an individual may be able to acquire, under suitable training, some knowledge, understanding, or skill."

While summing up these definitions, certain facts regarding the meaning of aptitude have emerged and they are as the following:

- Aptitude is a result of both heredity and environment. The primary mental ability which is a major factor herein is hereditary. The readiness to acquire knowledge or skill, and the satisfaction in the activity is cultivated on the effect on environment.

- Aptitude is symptomatic or indicative of one's potentialities. The understanding of an individual's aptitude helps us to know what he shall do in future.
- Aptitude can be developed by practice and training.
- It is of a specific nature, as it is not common to all the situations where a particular ability is used.
- As it cannot be further analyzed into simpler abilities, it is unitary. It remains, more or less, constant.
- It implies the facility of learning or readiness to acquire a particular job.
- It is considered to be unique or unusual potential of an individual.
- Aptitude opens the ways of interest and satisfaction in life.
- An individual may have many aptitudes or potentialities, but these are not equally strong.

14.5 NATURE OF APTITUDE

Some of the distinguishing aspects of aptitude are given below:

- *It is specific to individuals:* Aptitude is not a general ability but a specific talent needed for performing particular kinds of jobs by human beings.
- *Inborn and innate:* It is an inborn and inherent quality, which finds expression through training in a particular area. It is influenced by both hereditary and environmental factors. Hereditary provides the potential and environment helps to find expression to it.
- *Implies efficiency:* It is indicative of one's ability for a particular job. It implies efficiency and suitability for the activities they engage in.
- *Have future implications:* It is a present condition but with a future reference. It enables us to predict how successful an individual will be in a particular activity with proper training and experience.

14.6 CONCEPT OF APTITUDE TEST

Aptitude tests constitute one of the most widely used psychological tests. Any test designed to measure the probable future performance may

be called an aptitude test. It represents a person's level of competency to perform a certain type of task. Aptitude tests measure the degree or level of one's special ability in the same way as intelligence tests are employed for measuring one's general mental ability. These tests indicate the ability to acquire certain behaviour or skills when given an opportunity. They are chiefly used to estimate the extent to which an individual would profit from a specific course or training, or to predict the quality of his or her achievement in a given situation. For example, a mechanical aptitude test would be able to determine whether an individual would do well as a mechanic after appropriate training and with the right kind of motivation. Aptitude tests are structured systematic ways of evaluating how people perform on task or react to different situations. They have standardized methods of administration and scoring with the results quantified and compared with how others have done at the same tests.

During World War, Walter Van Dyke Bingham, a psychologist developed this test. It was used in the recruitment of Army called Army Alpha. His "*Aptitude and Aptitude Testing*" (1937/1942) is a classic in the field. In the words of Bingham, "Aptitude tests do not directly measure future accomplishments. They do not make such pretense. They measure present performance. Then, in so far as behavior, past and present, is known to be symptomatic of future potentialities, the test data supply a means of estimating those potentialities. The estimate is necessarily in terms of probabilities only." According to Hull, "An aptitude test is a test designed to discover what potentiality a given person has for learning some particular vocation or acquiring some particular skill." Freeman defines aptitude testing as "An aptitude test, therefore, is one designed to measure a person's potential ability in an activity of a specialized kind and within a restricted range".

Aptitude tests have a standardized method of administration and scoring, with the results quantified and compared with all other test takers. No prior knowledge is assumed, as the tests seek to determine innate ability at a particular competency. Aptitude tests assume that individuals have inherent strengths and weaknesses, and are naturally inclined toward

success or failure in certain areas based on their innate characteristics. An aptitude test does not test knowledge; it is not a test for which one can study. Thus, an overall assessment instrument or test designed to measure–

a) concrete abilities such as dexterity, visual acuity and clerical performance,

b) abilities related to professional training such as medicine, law, or nursing,

c) a range of basic abilities required for academic or vocational success, for example, verbal comprehension, numerical ability, mechanical knowledge and perceptual reasoning.



CHECK YOUR PROGRESS

Q.1: Is aptitude innate or acquired?

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Q.2: Give a definition of aptitude.

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14.7 TYPES OF APTITUDE TESTING

Two types of aptitude tests are usually employed in psychological testing. These are—

- Aptitude Test Batteries
- Specialized Aptitude Test

- **Aptitude Test Batteries:** In this category, two test batteries can be included for their superior value. These are the General Aptitude Test Battery (GATB), and Differential Aptitude Tests (DAT).

  a) General Aptitude Test Battery: The General Aptitude Test Battery, also known as the GATB, is a professional career aptitude test, which measures nine different aptitudes and can be used to help assess the likelihood that one will be successful in specific careers or training programmes. It was developed by the U.S.

Employment Service (USES) for use in occupational counseling, primarily by the national agencies, and in state employment offices. The test was published in 1947, revised several times, and discontinued in 2002. The battery assessed multiple cognitive, perceptual, and psychomotor abilities as preferred rather than general mental ability when classifying people into jobs. The primary goal of the GATB was to match employee abilities to specific jobs. USES validated the test against some 66 occupational groups in five job families, only a small percentage of those for which it could be used.

GATB Form A was used operationally in 1947 with Form B, which was used for validation research and retesting. These forms were changed over the years. In 1983, Forms C and D were introduced. The GATB consisted of 12 separately scored and timed subtests that were used to compute nine aptitude scores. Test administration did not require a professional and took 2.5 hours. The test was appropriate for individuals in Grades 9 through 12 or for those in the workforce. Sub-tests included name comparison, computation, three-dimensional space, vocabulary, tool matching, arithmetic reasoning, form matching, mark making, place (a pegboard test), turn (another pegboard test), assemble, and disassemble. The sub-tests involve both verbal and quantitative reasoning and both verbal and performance measures. Some subtests were highly speeded and were appropriate for clerical positions. Aptitude scores are computed; most commonly used are cognitive (including general, verbal, and numerical aptitudes), perceptual (including spatial aptitude, form perception, and clerical perception), and psychomotor (including motor coordination, finger dexterity, and manual dexterity) composites. The meaningfulness of the tests comprising the measure was thoroughly considered; it was found that the cognitive subtests demonstrated reasonable construct validity in terms of convergent validity, the perceptual

measures were substandard in this regard, and there had been too little research on the psychomotor measures to make an overall judgment. Some criticized the test because the aptitude composites are too highly inter-correlated. That is, some believed that the separate cognitive subtests of the GATB all measured the same thing or qualities that were so highly correlated as to be lacking discriminate validity.

Its use was both widespread and controversial. The primary issue was related to group differences. Also, concern had been raised over the use of the GATB's requiring relatively high levels of reading and arithmetic calculations with educationally and culturally disadvantaged persons. Furthermore, the original norm groups were limited by being both quite small and entirely male.

For example, if you took at the GATB and discover you had a strong numerical aptitude, it means you have the potential to do well at mathematics. You may not have taken many mathematics courses in school, but that doesn't matter when we're talking about aptitudes. An aptitude test seeks to measure what you have the potential to do well at; not what you already know. So, even if you haven't studied mathematics in many, many years, if the General Aptitude Test Battery shows that that you have a strong aptitude for mathematics, then you can feel quite confident choosing a profession or training programme that requires mathematical aptitude. You may need to brush up on your actual math skills before you will be successful in a specific course or career, but if your aptitude for mathematics is strong, you will not likely encounter any problems in learning the skills you need. The aptitudes that are measured by the General Aptitude Test Battery are as follows:

- **G– General Learning Ability:** The ability to "catch on" or understand instructions and underlying principles; the ability to reason, and make judgments. Closely related to doing well in school.

- **V– Verbal Aptitude:** The ability to understand the meaning of words and to use them effectively. The ability to understand relationships between words and to understand the meaning of whole sentences and paragraphs.
- **N– Numerical Aptitude:** The ability to perform arithmetic operations quickly and accurately.
- **S– Spatial Aptitude:** The ability to think visually of geometric forms and to comprehend the two-dimensional representation of three-dimensional objects. The ability to recognize the relationships resulting from the movement of objects in space.
- **P– Form Perception:** The ability to perceive pertinent detail in objects or in pictorial or graphic material. Ability to make visual comparisons and discriminations and see slight differences in shapes and shading of figures and widths and lengths of lines.
- **Q– Clerical Perception:** The ability to perceive detail in verbal or tabular material. Ability to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetic computation.
- **K– Motor Co-ordination:** The ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make movement response accurately and swiftly.
- **F– Finger Dexterity:** The ability to move fingers, and manipulate small objects with fingers, rapidly or accurately.
- **M– Manual Dexterity:** The ability to move hands easily and skillfully. Ability to work with hands in placing and turning motions.

b) **Differential Aptitude Test Battery:** It is an integrated battery of guidance battery. It was developed by George K. Bennett, Harold G. Seashore, Alexander G. Westman in 1947 to provide an integrated, scientific and well standardized procedure for

measuring the abilities of boys and girls in grades eight the twelve for purposes of educational and vocational guidance. The tests were updated in 1963 to meet new demands of large and small guidance programmes. The battery includes seven tests that are described below briefly—

- **Verbal Reasoning Test:** It is aimed at the evaluation of the student's ability to abstract or generalize and to think constructively. It may be expected to predict with reasonable accuracy success in fields where complex verbal relationship and concepts are important. The item type is versatile. The works used in it may be varied i.e. from history, geography, literature, science or any other contact area. The verbal reasoning test may be expected to predict with reasonable accuracy success in fields where complex verbal relationship and concepts are important. Verbal reasoning test scores deserve considerable. Weightage vocationally since the test also indicates something of the appropriately aspire. The test consists of 50 questions.
- **Numerical Ability Test:** It is a measure of the students' ability to reason with numbers, to manipulate numeric relationship and to deal intelligently with quantitative materials. It is important for prediction in such fields as mathematics, physics, chemistry, quantitative thinking. The numerical ability items are designed to test understanding of numerical relations and facility in handling numerical concept in which reading ability play a significant role.
- **Abstracts Reasoning Test:** It is intended as a non-verbal measure of the students reasoning ability. The series presented in each problem requires the perception of an operating principle in the changing diagrams. In each instance, the student must discover the principle governing the change of figures and give evidence of his understanding by designing the diagram, which should logically follow.

It involves the ability to perceive the relationship among abstract figures, patterns, generalization, and education of principles from non-language designs under ordinary conditions. The abstract score is relevant when the curriculum, profession, or vocation requires perception of relationship among things rather than among wards as numbers.

- **Clerical Speed and Accuracy:** It is intended to measure the speed of response in a simple perceptual task. The main objective of this test is to measure speed of perception, momentary retention, and speed of response. The ability to do routine work of the kind which this test exemplifies is important in filling, coding, stock room work, and the similar occupation. It is of relatively little importance for most educational purposes, although the pupils whose scores are very low may find it difficult to meet classroom standards of neatness sped and precision. The questions are 100 for each part.
- **Mechanical Reasoning Test:** It is a measure of one's ability to apply mechanical or scientific principles. The test is useful in those curriculum and occupations where an appreciation of the principles of common physical forces is required. It is important to realize that mechanical reasoning scores are of less educational and vocational significance for girls' than for boys'. Occupations such as those of the carpenters, mechanics, maintenance men, assemblers and hundreds of others in plants and factories, require the kind of understanding and measures.
- **Space Relation Test:** It measures the ability to deal with the concrete materials through visualizations. The items require mental manipulation of objects in three dimensional spaces.
- **Language Usages-Spelling and Sentences Test:** Its chief virtue, as distinguished from similar item types, is its adoptability to machine scoring. The words themselves however were chosen with care. All words were selected

from the lists in Gate's spelling difficulties in 3876 words (1937). The words were further selected editorially from their prominence in everyday vocabulary.

The sentences section of the language usage test in intended to measure the student's ability to find the errors, if any, in spelling punctuation, grammatical constructions etc. in full sentences given. The chief reason for their inclusion among the differential aptitude tests is that they represent basic skills which are necessary in so many academic and vocational pursuits.

- **Specialized Aptitude Tests:** These tests are used to measure the aptitudes of individuals in various specific fields or activities. Generally, these tests can be divided into the following sub-types according to their specific aptitude tested by them:

  a) Mechanical Aptitude Tests: Mechanical aptitude tests, or mechanical reasoning tests, are commonly administered for technical and engineering positions. The mechanical aptitude test measures the ability to understand and apply mechanical concepts and rinciples to solve problems. It is the ability involved in manipulating concrete objects, such as tools and dealing mentally with mechanical movements. It is a comprehensive form of sensory and motor capacities plus abilities such as manual dexterity, perception of spatial relations, capacity to get mechanical knowledge, comprehension of mechanical relation, mechanical reasoning and problem solving. Mechanical aptitude is not a unitary trait, but a combination of many traits, e.g., special perception and imagination; manual dexterity involving precision of muscular coordination; and motor abilities of strength, speed of movement and endurance. Mechanical occupations require all the three components but not in equal degrees. Mechanical aptitude may be measured either by an apparatus assembly test or by paper-pencil test. Some of the well-known mechanical aptitude tests are:

- Minnesota Mechanical Assembly Test
- Minnesota Spatial Relation Test
- The Revised Minnesota Power Form Board (1948)
- Stenguist Mechanical Aptitude Tests (Part I & II)
- Bennet Tests of Mechanical Comprehension
- L.J.O' Rourke's Mechanical Aptitude Tests

b) Musical Aptitude Test: Musical aptitude refers to a person's innate ability to acquire skills and knowledge required for musical activity, and may influence the speed at which learning can take place and the level that may be achieved. These tests have been devised for discovering musical and artistic talents. Musical ability has three aspects:

- **Motor aspect:** It requires the mastery of patterns of actions needed while playing on an instrument.
- **Perceptive aspect:** It means perceiving the various types of sensory discriminations and complex musical relationship. The sensory discrimination includes discrimination in loudness, pitch etc. The complex musical relationships include such things as the composition of a chord, pattern of a melody and its relation to harmony etc.
- **Interpretive aspect:** It involves aesthetic judgment about a melody or harmony. Whether a melody is suitable and pleasing to the ears or not? Whether the harmony has a rhythmic pattern? and so on.

Some of the popular musical aptitude tests are Seashore's Measures of Musical Talents whose primary purpose is to measure the simple sensory discriminations.

c) Artistic Aptitude Tests: These tests are devised to discover the talent for graphic art.

Two important tests of this nature are: The Meier Art Judgment Test and Horne Art Aptitude Inventory.

d) Clerical Aptitude Tests: Clerical aptitude, like the mechanical aptitude, is a combination of many traits. Although different

clerical jobs require different kinds of traits, yet the differences are more or less of magnitude rather than of kind. For example, speed and accuracy is one of the essentials for all clerical jobs, but a bank clerk needs it more than a general clerk than a typist. Similarly, speed in discrimination is also needed more by a bank clerk than a typist. According to Bingham, clerical aptitude involves several specific abilities like—Perceptual ability (ability to perceive words and numbers with speed and accuracy), intellectual ability (ability to grasp the meaning of words and symbols), motor ability (ability to use various types of machines and tools like typewriter, duplicator, cyclostyle machine, punching machine etc.). Some important clerical aptitude tests are—

- **Minnesota Vocational Test for Clerical Workers:** It was arranged by Dorothy M. Andrew. This test differentiates not only between clerical workers and other people, but also to some degree between classes and grades of clerical workers. The first part of the test consists of 200 pairs of numbers and the second of 200 pairs of names. The subject is required to match them.
- **Number Checking and Word Checking:** This test indicates the ability to notice slight differences between pairs of numbers and words. This ability is very useful in many clerical jobs.
- **General Test for Stenographers and Typist:** It was developed by the Research Division, US Civil Service Commission. This test is designed to measure the adaptability, mental alertness, and knowledge which typist and stenographer should have, besides their specific skills. Questions involve practical judgment, vocabulary, and English usage, spelling and reading comprehension.
- **The Clerical ability test:** It was prepared by the Department of Psychology, University of Mysore, Mysore.
- **Clerical Aptitude Test Battery:** Developed by Bureau of Educational and Vocational Guidance, Patna.

- **Test of Clerical Aptitude:** Prepared by the Panchayat Guidance Bureau, 209, Hornby Road, Bombay-1.

e) Professional Aptitude tests: These tests are designed to measure the aptitude for professions like teaching, clerical duties, medicines, law, engineering, salesmanship, research, etc.

f) Scholastic Aptitude Tests: These tests are employed to select the students for admission to specific courses or professions like engineering, law, medicine, business management, etc. Some of these aptitude tests are:

- The American Council of Education Scholastic Aptitude Test (ACE).
- Scholastic Aptitude Test (SAT) developed in U.S.A.
- Stanford Scientific Aptitude Test by D.L. Zyve
- Science Aptitude Test (after higher secondary stage); N.I.E. Delhi.
- Moss Scholastic Aptitude Test for medical students.



CHECK YOUR PROGRESS

Q.3: What are the factors involved in clerical aptitude tests?

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Q.4: Mention any one scholastic aptitude test.

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Q.5: Enlist the seven tests included in the Differential Aptitude Test Battery.

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14.8 UTILITY OF APTITUDE TEST IN THE FIELD OF EDUCATION

Aptitude tests have been observed to be a highly accurate tool for the selection of the right candidate as compared to interview, group discussion, written tests, and so on. Based on this assumption, today an increasing number of organizations, including educational organizations, use this tool. The need and prospects of such tests have been increasing in the field of education day by day. The following are the uses of aptitude tests in the field of education:

- **To enhance manpower resources:** There lies individual differences among individuals, and because of that, not every individual is fitted for any kind of job. Their innate and inherent abilities and aptitudes have to be identified so that right training can be provided for the efficient utilization of manpower resources in today's world of industrialization and specialization.
- **Useful in providing educational guidance:** Students have to take the right decisions in choosing the right choice of subjects in the high school, as various courses need specific nature of abilities and aptitudes. In such cases, we can use aptitude test battery for identifying the strengths and weaknesses of children. The results of such tests will enable us to identify in which field or activity the child is more likely to be successful and make progress in future.
- **Helpful in providing vocational guidance:** Many students are found to be lacking in the academic aptitude for which formal education becomes a big burden to them. However, they may have other form of manual and motor aptitude needed for different kinds of vocations. Therefore, aptitude tests can be very effective in identifying the nature of their traits in specific vocational courses to which they will be best fitted particularly at the secondary level.
- **Proper selection of trainees:** There are certain specialized courses where selection of the trainees may be considered very essential before training is given to them. Hence, aptitude tests may prove be

very effective in selecting students for admission to technical and professional courses. Thus, these tests serve as a screening device at the time of recruitment process.

- **Vocational selection:** An employer can take up these tests for vocational selection too. With these tests, he can reduce the number of probable failures among those who take up that job.
- **Administrative uses:** An administrator can use aptitude test scores for selection, classification and placement decisions. Besides, aptitude tests may be used for relevant supplementary information in curriculum planning and evaluation.
- **Research uses:** Aptitude test scores can be used in many ways in research. The scores are used as independent variables in a research design.

Thus, it is clear that any purposeful guidance and counseling programme or entrance examination to specialized academic and professional courses or selection procedures for specialized jobs should give due importance to aptitude testing. Aptitude testing combined with the other information received through interest inventory, personality tests, intelligence tests, and cumulative records etc. can help to a greater extent in avoiding considerable waste of human as well as material resources by placing the individuals in places and lines of work where they are most likely to be productive.

The aptitude tests thus are specifically designed tests to measure the ability to acquire/apply skills and/or knowledge to a specific type of job. Various aptitude tests are designed to test certain skills or abilities to apply the skill to the job in question by the candidate. The types of aptitude tests that are taken depend on what purpose the results are intended to serve. Thus, aptitude tests are used for a variety of purposes and are administered by assorted sources. The teachers use these tests to measure their students' performances, the schools may use them to determine an individual's knowledge within certain fields, and the employers often use them to identify the candidate who is most capable or best suited for a job. In addition, aptitude based tests are regarded as one of the most useful varieties of career tests.



14.9 LET US SUM UP

- Aptitude is a special ability or specific capacity, distinct from the general intellectual ability, which helps an individual to acquire the required degree of proficiency or achievement in a specific field.
- It is an inherent or acquired ability of an individual, which ease the process of learning or understanding.
- Aptitude is symptomatic or indicative of one's potentialities.
- It is of a specific nature.
- It is a present condition but with a future reference. It enables us to predict how successful an individual will be in a particular activity with proper training and experience.
- Aptitude tests measure the degree or level of one's special ability in the same way as intelligence tests are employed for measuring one's general mental ability.
- Aptitude tests have a standardized method of administration and scoring, with the results quantified and compared with all other test takers.
- There are two types of aptitude tests– Aptitude Test Batteries and Specialized Aptitude Test
- Examples of Aptitude Test Batteries are General Aptitude Test Battery and Differential Aptitude Test Battery
- Examples of Specialized Aptitude Tests areMechanical Aptitude Tests, Musical Aptitude Test, Clerical Aptitude Tests, etc.
- Aptitude tests are increasingly being used in different fields, including the field of education. It is used for enhancing manpower resources, providing educational and vocational guidance, proper selection of trainees, appropriate placement and for research purposes.



14.10 FURTHER READING

1) American Educational Research Association, American Psychological Association, and National Council on Measurement in Education.

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14.11 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Both innate and acquired.

Ans. to Q. No. 2: According to Freeman, aptitude is "a combination of characteristics indicative of an individual's capacity to acquire (with training) some specific knowledge, skill, or set of organized responses."

Ans. to Q. No. 3: The factors involved in clerical aptitude testsarespeed and accuracy in simple clerical task, speed in simple discrimination, spatial ability, speed in motor ability and ability to observe and compare.

Ans. to Q. No. 4: The American Council of Education Scholastic Aptitude Test (ACE).

Ans. to Q. No. 5: The tests included in Differential Aptitude Test Battery are verbal reasoning test, numerical ability test, abstracts reasoning test, clerical speed and accuracy, mechanical reasoning test, space relation test and language usages-spelling and sentences test.



14.12 POSSIBLE QUESTIONS

A) Very Short Questions (Answer each question in about 50 words)

Q.1: Who said that "Aptitude depends on unknown proportions"?

Q.2: State whether true or false: Aptitude can be developed through training.

Q.3: Who developed the General Aptitude Test Battery?

B) Short Questions (Answer each question in about 150 words)

Q.1: Define aptitude in your own words on the basis of the definitions provided by various scholars.

Q.2: State Bingham's views on aptitude.

Q.3: Write a short note on Musical Aptitude Test.

Q.4: How are aptitude tests used in the field of education?

C) Long Questions (Answer each question in about 300-500 words)

Q.1: Describe the nature of aptitude.

Q.2: Explain with examples, how is aptitude different from achievement.

Q.3: Describe the Differential Aptitude Tests in detail.

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UNIT 15: JUVENILE DELINQUENCY

UNIT STRUCTURE

15.1 Learning Objectives

15.2 Introduction

15.3 Meaning of Delinquency

- 15.3.1 Definitions of Delinquency
- 15.3.2 Characteristics of Delinquents
- 15.3.3 Activities of Delinquents

15.4 Causes of Delinquency

15.5 Prevention of Delinquency

15.6 Let Us Sum Up

15.7 Further Reading

15.8 Answers to Check Your Progress

15.9 Possible Questions

15.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- explain the meaning of delinquency;
- identify the characteristics and activities of delinquents; and
- analyse the causes and treatment for Juvenile delinquency.

15.2 INTRODUCTION

In the present society, we often find many crimes committed by teenagers almost every day. These incidents are on increase due to the negative role played by mass media especially TV or Internet. The offence or crime committed by these teenagers is termed as delinquency. Delinquency at present is a major social issue. It is a violating tendency of children towards accepted social rules and norms. In this unit, we are going to learn about the meaning of delinquency and how they act in society and how we can treat this problem by means of education.

15.3 MEANING OF JUVENILE DELINQUENCY

Delinquent children are those children who belong to the category of exceptional children and exhibit considerable deviation in terms of social adjustment. They are therefore law breaking and possess criminal tendencies. Therefore, their attitude and behaviour are not acceptable by the society. They basically indulge in antisocial activities. In delinquents, the instinctive and biological urges appear to be over active whereas their conscience remains weak. As such, they are easily prone to violence. A delinquent child derives the sense of compensation or revenge through his activities. Delinquency is, therefore, a revelation of the emotionally disturbed and troubled mind.

We can find this tendency of delinquents generally among the adolescent boys and girls. These adolescent boys and girls are of those categories of persons who actually possess a sense of frustration in their personal and social life. The criminal act of their immature mind below the age of 18 years is known as ***Juvenile Delinquency.*** The cases of their criminality are judged separately in a court of law called Juvenile Court. In simple words, the term '***Juvenile Delinquent'*** or '***Young Delinquent'*** means a child or minor who deviates seriously from the norms of his culture or society and commits murder and robbery or other offences that are strictly age related.

From the legal standpoint, delinquency consists of those behaviours that are prohibited by the family or juvenile code of the state and that subject minors (i.e., persons not legally adults) to the jurisdiction of the juvenile court. Behaviours prohibited by juvenile codes can be grouped into two categories: (1) Behaviours that would be defined as criminal offenses if committed by adults (malicious destruction of property, larceny, robbery, motor vehicle theft, etc.), and (2) Behaviours that are prohibited only for minors, which are called status offenses (school truancy, running away from home, incorrigibility, etc.).

The nature of their act of crime and offence are also quite significant. They indulge in activities like theft, robbery, assault, sex offences, narcotics,

smoking, gambling, pick-pocketing etc. In school, the nature of their violating tendency finds expression through irregularity, inattention, indiscipline, disobedience, obstinacy, truancy and assault.

According to the data released by the government for 2014, juveniles continue to constitute 1.2 per cent of the total cognizable crime rate in the country, a trend that has remained unchanged since 2012. In that year, 33,526 cases (under IPC) were registered against minors, as against an overall total number of 28, 51,563 cases registered in the country. When cases that were filed under Special Local Law were added to the IPC data, the total number of cases against juveniles shot up to 48,230. About 75 per cent of those accused in these cases were in the age group of 16-18 years. (Source for statistical data: *https://www.ojjdp.gov/ojstatbb/nr2014/downloads/NR2014.pdf)*

15.3.1 Definitions of Delinquency

The following are some of the definitions of Delinquency.

- According to Johnson and Szurek, “Delinquency is actually a deficiency in the formation of superego. Delinquent child fails to internalize the primitive taboos and code of conduct set by the family and the society and works on either pleasure principle or he is guided by his ego. Delinquency is actually holes in the superego of man.”
- Bandura and Walters are of the view that delinquency is the manifestation of frustrated needs of the child, which lead him to behave aggressively.
- According to New Meyer, a delinquent is a person under age who is guilty of anti social act and whose misconduct is an infraction of the law.
- Richard A Cloward has defined delinquency in the following words, “Delinquent act is a behaviour that violates norms of the society and when officially known it evokes a judgment by agent of criminal justice that such norms have been violated.

- Herbert Quay in his book 'Juvenile Delinquency' has defined the concept in the following words, "Delinquent would be a person whose misbehaviour is relatively a serious legal offence which is inappropriate to his level of development and is alien to the culture in which he has been reared."
- According to C. Burt, "A child is to be regarded as technically delinquent when his antisocial tendencies appear so grave that he becomes or ought to become the subject of official action."
- Ohio code of the USA defines the term in the following ways, "A Juvenile Delinquent is one who breaks the law, is a vagrant, persists in disobeying orders, whose behaviour endangers his own moral life as well as the moral life of others."
- Delinquency in the view of the Coleman (1981) refers to "behaviour of youths under 18 years of age which is not acceptable to society and is generally regarded as calling for some kind of admonishment punishment or corrective actions".

It is clear from the above definitions that unless a young man is brought to the court and his delinquency is not proved, he is not delinquent. As far as the age for delinquency is concerned, it varies from country-to-country ranging from 16-20. According to Juvenile Justice (Care and Protection of Children) Act 2015 passed by Parliament of India, which came into force from 15 January 2016, the age group for Juvenile Delinquents include from 16-18 so that juveniles in conflict with law and involved in Heinous Offences can be tried as adults.



LET US KNOW

Though delinquent activities are termed as crime or criminal activities, yet there is a difference between crime and delinquency. These are as follows:

- Difference in age: Both of them indulge in antisocial activities, but a delinquent is one who is in the age group of 15-20 while a criminal is above this age level.

- Difference in activities: Many activities of delinquents do not require legal action such as cruelty; obstinacy etc. but activities of criminals always require legal action.



CHECK YOUR PROGRESS

Q.1: Who is a Juvenile Delinquent?

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Q.2: Mention the age group of Juvenile Delinquents according to Juvenile Justice (Care and Protection of Children) Act 2015.

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Q.3: Define Delinquency.

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15.3.2 Characteristics of Delinquents

Some of the typical characteristics that may be observed in the delinquent children may be seen as the following:

- The IQ for the delinquent children is below average in general.
- Not almost all delinquent children prefer reading, writing and other school activities.
- Delinquent children are mostly weak in using their verbal and visual form of symbols.
- Socially, these children are undemocratic, destructive and they possess a sense of violence from very early stage of life.
- They are emotionally mal-adjusted, frustrated, rejected, unloved and guilty.

- Delinquent children always suffer from the lack of sense of emotional security.
- Their personality traits appear to be suspicious, sadistic and revengeful.
- Their hobbies and leisure time activities seem to be very unhealthy like smoking, drinking, drug related activities etc.
- They are by nature thoughtless, desperate and obstinate in their behaviour.
- Their Id remains more powerful, whereas Super-ego or spiritual sense is very weak.

Besides the above-mentioned characteristics, we can also highlight some important characteristics of Juvenile Delinquents identified by Sheldon and Gluecks. They are as follows:

- **Physical:** Mesomorphic in constitution, muscular, energetic and bold.
- **Temperamental:** Restless, impulsive, extroverted, aggressive and destructive.
- **Attitudinal:** Hostile, defiant, resentful, suspicious, unconventional and non-submissive to authority.
- **Psychological:** Direct and concrete intellectual expression, less methodical in their approach to the problem, and disregard to elders.
- **Socio-cultural:** Lack of affection and stability and low moral standard of parents and elders.



LET US KNOW

Many psychologists hold the view that crime or delinquency is inherited from parents and ancestors. These are examples of some of the studies done by some eminent psychologists in this regard:

- Studies of family trees of **Kallikak and Edward** families have shown that crimes as well as intelligence are inherited from generation to generation.

- **Goring** established the facts that intelligence was more associated with criminal tendencies as compared to physical characteristics of the subject. Low intellectual ability of the person may be an important cause of delinquency.
- **Goddard** in his book, "Mental efficiency and levels of intelligence" has stated that the greatest single cause of delinquency is mental weakness.
- **Smith** found that the thief and murderers suffered from the disturbance of gland cells and central nervous system.

15.3.3 Activities of Delinquents

Types of delinquents' acts are many because of socio-economic and cultural variations. Some common delinquent acts are listed below:

- Delinquents always want to satisfy their immediate social and biological needs as a result they indulge in activities like stealing, sexual harassment, and so on.
- Another activity found to be common among delinquents is the act of forgery. They may forge the signature of parents and teachers and indulge in illegal activities.
- They behave very aggressively. They show aggression against animate and inanimate objects of the environment.
- Sexual crimes are very commonly created by the delinquents.
- One of the extreme forms of delinquency is murder or robbery. They involved in these kinds of activities when others irritate them.
- Delinquents mostly become truants and escape from the place. Some such acts are truancy from the school, running from home, leaving the place immediately after committing crime.



CHECK YOUR PROGRESS

Q.4: Mention some activities of delinquents.

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Q.5: List out the characteristics of delinquents identified by Sheldon and Glueks.

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15.4 CAUSES OF DELINQUENCY

The mal-adjusted and defective growth of child's personality in the early years may result in delinquency. Cyril Burt who made an objective study of delinquency had observed that parental criminality is not dominating factor for children's crime. There are typical environmental situations that give incentive to criminal senses in mind. Inappropriate home, school and social environment are largely responsible for delinquency. The causes of and conditions for juvenile crime are usually found at each level of the social structure, including the society as a whole, social institutions, social groups and organizations, and interpersonal relations. A wide range of factors, the most important of which are described below, fosters juveniles' choice of delinquent careers and the consequent perpetuation of delinquency.

- One of the vital causes of delinquency in children is the lack of parental love.
- Lack of discipline at home, lack of parental control, broken family are the contributory factors to delinquency.

- Another factor responsible for delinquency of children is the lack of planned family system, and also the lack of family prestige.
- Unfavourable school environment may also lead to delinquency of children. Ineffective academic and theoretical nature of school programme, lack of co-curricular facility, and the teacher insisting too much on educational activity may lead to such situation in school.
- Moreover, the teachers' unfriendly and hostile attitude towards children may also worsen the situation to make delinquency in school.
- Due to poverty, children are prone to be delinquent as their parents are unable to fulfill their legitimate needs.
- Media is also one of the reasons behind growing delinquent activities. Adult crime, prostitution, drug trafficking, black marketing etc. shown in movies are responsible to create delinquents.
- At the present situation, educated unemployment, craze for earning easy money, abundance of black money and degradation of moral values are the reasons for the growth of delinquency.
- Absence of healthy recreational facilities may also lead to delinquency among children.
- Political unrest, communal violence, social injustice, misuse of power are some of the adverse effects of our society, which cause delinquency.

Thus, these are some of the causes of delinquency, but delinquency is the result of cumulative factors of social problems.

15.5 PREVENTION OF DELINQUENCY

While treating a juvenile delinquent, the welfare of the child is given foremost importance. The purpose should not be only to punish the delinquent, but to correct his criminal tendencies and to make him a productive citizen of the country. The Children's Act of 1960 passed by our parliament seeks to provide for the care, protection, maintenance, welfare training, trial and rehabilitation of delinquents and neglected children.

The home is the natural environment of any child, and all efforts should be made to help him to continue at home as far as possible. When

a delinquent child is taken under custody, he is brought to a remand home. His parents/guardians are contacted, and he is discharged with a warning. He is kept in the institution only when he is a destitute. A juvenile offender's case is tried in a juvenile court, which is not a regular court, but an informal place of trial set up occasionally to decide about such cases. The entire procedure is very informal and only those people who are directly associated with the child are allowed to be present in the juvenile court. If the child needs institutionalisation, he is sent to special correctional institutions like reformatories, certified schools. In all these institutions, the child is provided with proper lodging, boarding, facilities for education and vocational training, recreation and moral training. The problem of juvenile delinquency can be controlled or remedied by creating better social institutions and healthy environment in our society. Better homes, better economic conditions, better education, recreation and better political situation can go a long way in this connection. Thus, with regard to this, we can highlight some preventative measures, which may be effective to handle the problem of delinquency among children. These are as follows:

- **Congenial home environment:** A favourable and suitable home environment should be created so that the children can feel emotionally secure and can gain trust and confidence of the family members. The parents should develop positive attitude towards their children.
- **Child's Company:** Every child should be given the maximum company by their parents at home. Parents and even school authorities should keep a close watch on the activities and social environment in which they are being reared so that they do not fall into the bad company in their mere future.
- **Teach Social rules and norms:** It is the duty of the parents as well as teachers to teach or to train children to be loyal, faithful, and to abide by the rules and norms of the society.
- **Proper school environment:** The teachers in schools should be sympathetic and appreciative of the students' problems. A teacher should be competent enough to guide the children appropriately.

- **Flexibility of school curriculum:** The children should not be burdened with heavy educational workload in schools. Their interest should be directed to co-curricular activities.
- **Inclusion of Special Courses:** Provision should be made for sex education and moral education besides the regular course of study. Moreover, vocationalisation of secondary education should be emphasized so that children can engage themselves in fruitful activities.
- **Healthy Recreational Facilities:** Provision should be made for organizing healthy recreational facilities at home and school. Besides, the government should also take special initiatives in this regard. Steps should be taken to train children in good taste and aptitude.
- **Scope for employability:** The government should create enough employment and self-employment avenues for children. A sense of work-culture should be developed in society.
- **Effective legalization:** Effective legalization should be undertaken by the government to stop delinquent tendency of a certain section of people in society such as gambling, drinking, black marketing etc.
- **Removal of socio-economic and political problems:** Political leaders, administrators and the social workers should come forward to solve socio-economic and political problems of the society, which often lead to delinquency tendency among children.
- **Establishment of special schools:** In order to rectify the behaviour of the delinquents, they are admitted in special schools meant for them. Special teachers teach them special curriculum and they are evaluated in special manners.

Besides, the above mentioned preventive measures, ***The Children's Young Person's Act of Britain*** has also suggested some curative measures with some modifications for India for the removal of Juvenile Delinquency in India. These are as follows:

- Establishment of special Juvenile courts with trained magistrates to deal with Juvenile Delinquents.

- Appointment of trained social workers or probation officers for taking charge of delinquent cases.
- Taking the help of clinical psychologists and psychiatrists for understanding the delinquent behaviour of children.
- Establishment of special schools where special education, correction, and rehabilitation is possible.
- Provision of keeping the children in the custody of responsible persons or social agencies.
- Establishment of remand homes where delinquent children may be lodged while awaiting trial or placement in an approved school or in the custody of a responsible person, or if so directed by a probation officer prior to employment or on discharge from an approved school.

It has been observed that at present, children and their problems are receiving attention from the government as well as the members of our society. However, still it has been found that these problems seem to be never ending which results in the degradation of moral values and rise of conflict and crimes in society. The social, economic and other factors, which have been the root causes of juvenile delinquency, need to be dealt with at the initial stage. Every society must, therefore, devote full attention to ensure that children are properly cared for and brought up in a proper atmosphere, where they could receive adequate training, education, and guidance in order that they may be able to have their rightful place in the society when they grow up.



ACTIVITY 15.1

Narrate an incident you have come across in your life, which you feel is an activity of a delinquent.

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15.6 LET US SUM UP

- Delinquent children are those children who belong to the category of exceptional children and exhibit considerable deviation in terms of social adjustment. They are therefore law breaking and possess criminal tendencies whose attitude and behaviour are not acceptable by the society.
- The criminal act of their immature mind below the age of 18 years is known as ***Juvenile Delinquency.***
- In simple words, the term ***Juvenile Delinquent*** or ***Young Delinquent*** means a child or minor who deviates seriously from the norms of his culture or society and commits murder and robbery or other offences that are strictly age related.
- The nature of the act of crime and offence of delinquents are also quite significant. They indulge in activities like theft, robbery, assault, sex offences, narcotics, smoking, gambling, pick-pocketing etc. In schools, the nature of their violating tendency finds expression through irregularity, inattention, indiscipline, disobedience, obstinacy, truancy and assault.
- Some of the important causes of delinquency are broken families, poverty, lack of discipline, lack of recreational facilities, lack of moral code, lack of discipline in school, ineffective curriculum etc.
- Some of the preventive measures for delinquency are- congenial home and school environment, providing maximum time to child, training on social rules and norms, flexibility of school curriculum, inclusion of special courses, establishment of special schools, effective legalization, scope for employment etc.



15.7 FURTHER READING

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15.8 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: ***Juvenile Delinquent*** or ***Young Delinquent*** means a child or minor who deviates seriously from the norms of his culture or society and commits murder and robbery or other offences that are strictly age related.

Ans. to Q. No. 2: According to Juvenile Justice (Care and Protection of Children) Act 2015 passed by Parliament of India, which came into force from 15 January 2016, the age group for Juvenile Delinquents include from 16-18.

Ans. to Q. No. 3: Ohio code of the USA defines the term in the following ways, "A Juvenile Delinquent is one who breaks the law, is a vagrant, persists in disobeying orders, whose behaviour endangers his own moral life as well as the moral life of others."

Ans. to Q. No. 4: Delinquents indulge in activities like theft, robbery, assault, sex offences, narcotics, smoking, gambling, pick-pocketing etc. In schools, the nature of their violating tendency finds expression through irregularity, inattention, indiscipline, disobedience, obstinacy, truancy and assault.

Ans. to Q. No. 5: Some important characteristics of Juvenile Delinquents identified by **Sheldon and Gluecks** are as follows:

- ***Physical:*** Mesomorphic in constitution, muscular, energetic and bold.
- ***Temperamental:*** Restless, impulsive, extroverted, aggressive and destructive.
- ***Attitudinal:*** Hostile, defiant, resentful, suspicious, unconventional and non-submissive to authority.

- ***Psychological:*** Direct and concrete intellectual expression, less methodical in their approach to the problem, and disregard to elders.
- ***Socio-cultural:*** Lack of affection and stability and low moral standard of parents and elders.



15.9 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q.1: Write a short note on Juvenile Delinquency.

Q.2: How can you identify the delinquents?

Q.3: Mention the characteristics of Juvenile Delinquents.

B) Long Questions (Answer each question in about 300-500 words)

Q.1: Discuss in brief the activities of the delinquents.

Q.2: Elaborate the main causes of delinquency. Discuss its preventive and curative measures.

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