DVTE (MR) MANUAL

Psychology Applied to Vocational Training

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Rehabilitation Council of India
(A statutory body of Ministry of Social Justice and Empowerment)

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Foreword

"A book that fills the mind with beauty and opens the heart to what is lovely and lovable is a treasure forever". It allows transmission of knowledge from generation to generation and from place to place. Books have always been our best friend and a source of learning. We read and write for many purposes, most of the time they are either social or academic.

This manual attempts to serve the academic needs in the field of Special Education and Rehabilitation. Disability Studies are mostly dependent on western books and literature with very little being available within the country. An effort has been made to fill in the gaps that existed, by preparing the manuals that would be simple in approach, easy to understand and serving the students needs. We hope that they will prove to be an effective tool not only for students and teachers, but also for parents, NGOs and organizations of persons with disability. The manual attempts to consciously follow the course syllabus and in the process explore the general and disability specific issues. In the process of creating such specifically tailored manuals for the courses, there are possibilities of oversights or errors despite our being careful. The Council would like to invite your suggestions and comments so that the subsequent editions, revised versions can be improved upon.

Time and again, it was emphasized that there is a great dearth of study material for the students as well as the teachers for the various diploma level courses in discipline of Special Education and Rehabilitation of the Council. This set the Council to take up the onerous task of manual preparation. Lots of effort has gone into the process, by the authors and the editors. Searching for the appropriate and relevant material that should go into the manual, readily understood by the trainee has been a gigantic responsibility executed with extreme care by the specialist team chosen for this purpose.

The Council would like to thank everyone associated with this project for their contribution. We hope that the manuals are able to unlock the doors of knowledge and successfully develop an insight into the world of persons with disability.

(Dr. J.P. Singh)
Member-Secretary

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1

Introduction to Psychology

Introduction

To fulfill the role of vocational instructors, you should have the basic knowledge about psychology applied to vocational training of persons with mental retardation. Therefore Paper II deals with psychological aspects. The Unit I gives an introduction to psychology, which includes definition, application, branches, scope and application of psychology in the field of mental retardation.

Objectives

After studying this unit, you will be able to:
- Define psychology and explain its various aspects
- Explain the applications of psychology
- Analyze the scope for psychology
- Find out the application of psychology in the field of mental retardation.

'Psychology'—Meaning

The word Psychology came from two Greek words – 'Psyche' means soul and 'Logos' means discourse (the systematic study).

Psychology began as an attempt to study the mystical behaviour of people; moved on as the study of soul; study of mind; study of consciousness and unconsciousness. All these studies are based on philosophy and hence, psychology considered to be originated from philosophy.

Psychology, like many other branches of science, was established as a separate field of study when Wilhelm Wundt, a Germen medical graduate turned psychologist, in 1879, formally established the first experimental laboratory of psychology at Leipzig, Germany. Thus,

Wilhelm Wundt is considered as the founder of modern psychology.

Definition

Strange as it may seen, defining psychology is no easy matter because of both the wide scope of its concerns and the philosophical differences among its practitioners. But if you ask a psychologist to define the word, the chances are good that you will be told something like: psychology is " the science of human and animal behaviour; it includes the application of this science to human problems".

The first part of this definition calls psychology as a science. The second part of the definition is about the application of psychological principles to life's problems. You may also wonder about the word behaviour in the definition. Another question, which may occur to you, is whether psychology is the only science of human and animal behaviors. We look at each of these questions.

Psychology as A Science

A science is a body of systematized knowledge that is gathered by carefully observing and measuring events. Psychologists do experiments and make observations, which others can repeat; they obtain data, often in the form of quantitative measurements, which others can verify. Thus experiments and observations are at the core of scientific study of psychology.

Another important part of most sciences including psychology is measurement, defined as the assignment of numbers to objects or events according to certain rules.

The Application of Psychology

As the second part of the definition of psychology says, psychology has its applied side – that it is often used to solve 'real-life' problems.

The application of knowledge to practical problems is an art; it is a skill, or for doing things, which is acquired by study, practice and special experience. The psychotherapist talking to a worried client, the educational psychologist advising a school board on a new curriculum, the clinical psychologist supervising group therapy in a state mental hospital and the social psychologist trying to reduce tensions between management and workers in a large industry are all practicing the art of psychology.

Psychology Studies Behaviour

We now come to the word behaviour in the definition of psychology. Behaviour includes anything a person or animal does that can be observed in same way. Behaviour, unlike mind or thoughts or

feelings, can be observed, recorded, and studied. Psychologists can make inferences about the feelings, attitudes, thoughts and other mental processes of the behaviour. In this way, internal mental events can be studied as they manifest themselves through their behaviour.

Study of Behaviour is not Just for Psychologists

Psychology is far from being the only branch of knowledge which studies human and animal behaviour. Anthropology, sociology, economics, political sciences, geography and history also study various aspects of behaviour. Together with psychology, these fields make up the group of knowledge areas known collectively as the behavioural sciences. What sets psychology apart from the other behavioural sciences is partly its exclusive interest in behaviour, partly its focus on individuals, and partly the wide range of behaviours it covers.

Some Definitions of Psychology

Watson J. B. (1913), the founding father of Behaviorism conceived 'Psychology as a science of human behaviour investigating human conduct.'

"First psychology lost its soul, then it lost its mind, then it lost its consciousness". (Woodsworth, R. S.)

Psychology has been defined as "the systematic study of human and animal behaviour including the application of the science to human problems." (Morgan et al., (1986)

Branches of Psychology

Psychology is the science of behaviour. It covers cognitive as well as non-cognitive behaviour. Cognitive includes behaviour pertaining to mental abilities whereas non-cognitive takes into consideration of those behaviours, which emerge from affective and psychomotor domains. Some of the important branches of psychology are given below :

General Psychology: It deals with the fundamental principles of human behaviour related to normal individuals.

Abnormal Psychology: It is the behavioural studies of the abnormal individuals who display deviations from normal behaviour norms.

Social Psychology: It describes the behaviour of individuals in the society.

Industrial/ Organizational Psychology: It is that branch of psychology that deals with the behaviour of the individuals in industrial setting.

Educational Psychology: It deals with the Teaching –Learning

–Testing processes of the learners as well as of teachers in educational institution.

Clinical Psychology: It is that branch of applied psychology, which deals with the cause, and treatment of mental diseases of patients coming to a clinic for treatment. Diagnosis of mental diseases and application of remedial measures through therapeutic treatment constitute the total clinical psychology.

Physiological Psychology: It deals with the study of nervous system, sense organs, glandular system, reflex action which largely account for behavioural dynamics.

Experimental Psychology: Experimental Psychology is the soul of modern psychology. It accounts for psychology being a scientific discipline in which objective observation and control and prediction of behaviour function as primary attributes.

Developmental Psychology: It deals with developmental dynamics of an individual from his pre-infancy to old age till death.

Comparative Psychology: Comparative psychology is known as Animal Psychology. It deals with the comparative psychological processes of animal behaviour.

Scope of Psychology

Like any other branches of science, psychology has its wide scope in its application and utility. The scope of psychology includes the following :

A. Understanding Human Beings

Some individual characteristics as trails of personality, attitude, values etc. which display some cognitive as well as non-cognitive attributes also describe varied aspects of individual potentialities and provide unique scope in understanding the human beings.

B. Understanding Professionalisation of Persons

Psychology is primarily an applied science of human behaviour. As such, psychological principles are made applicable and behavioural modifications are practiced in all spheres of life and work. Selection of professionals and placement of persons can be made in accordance with their abilities and aptitudes on the strength of psychological scores obtained on psychological tests and instruments.

C. Grading, Grouping, Categorizing and Classifying Human Ability

Psychological tests and measuring instruments enable the teachers and researchers to develop homogeneous samples, which promote effectiveness in any functional operation.

D. Community Services

Knowledge and understanding of socio-cultural system of various social customs, traditions, folklore, myths, legends enable people to render effective community services and promote inter-personal affiliation and emotional integration between and within social groups.

E. Promoting Understanding of Abnormal Individuals and Disabled Children

Psychology studies normal as well as abnormal behaviour and provide effective therapeutic measures for the modification of behaviour and cure of mental disorders. Understanding of disabled or differently able children would be a great service to humanity.

F. Promoting Adjustment Mechanisms

Knowledge of psychological dynamics help individuals to promote inter-personal understanding and adjustment mechanism which enable individuals to lead a harmonious life.

G. Promoting Guidance and Counselling

After diagnosing deficiency and disorders, providing remedial measures for deficiencies and shortcomings through psychological guidance and counselling services derive great satisfaction.

H. Behaviour Modification Services

Psycho-technologies and therapeutic techniques render unique services in Behaviour – Modification and human welfare.

Application of Psychology in the Field of Mental Retardation

The application of psychology in the field of mental retardation are as follows:

1. Assessment

Knowledge of psychology is essential for dealing with a person with mental retardation. It helps right from taking the case history of the individual. As per the definition of mental retardation, present day functioning, intellectual abilities and the adaptive behaviour are to be assessed to classify a person as mentally retarded.

2. Diagnosis

For diagnosis, information is collected from the psychological tests administered; observation made during the testing; information collected from reliable informants and by corroborating these informations with the other assessments like physical or medical

examination. In diagnosing mental retardation, psychological assessment, specially, intelligence tests play an important role.

3. Management

The persons with mental retardation have cognitive and adaptive skill deficits. Therefore special management techniques are used to help them to cope with their potentials. Psychological principles in learning theories, development, motivation, memory and perception play a very important role in management.

Some of the direct application of the principles/ theories and techniques of psychology in the field of MR are briefly as follows :

Behaviour Modification

Mental Retardation, by its very nature, shows deficits in behaviour. Further, nearly sixty percent of persons with mental retardation are reported to have maladaptive/undesirable behaviours. The principles of psychology particularly, those derived from operant conditioning are applied to develop skills/behaviour are to decrease problem behaviours.

Classroom Management

The knowledge of psychology especially that derived from Educational psychology helps in the arrangement of classroom with respect to the physical setup and sitting arrangements. It also provides guideline for curricular development with reference to age group of the children.

Home Management

A mentally retarded child, like any other child, spends more amount of time at home than at the special school. Hence it is important for the family members to get information on behaviour modification and other therapeutic techniques. The knowledge of psychology facilitates this training process resulting in effective home management.

Vocational Habilitation

The vocational potential of persons with mental retardation has been established since long time. Before considering a mentally retarded person for job training and placement, he/she has to be assessed thoroughly with respect to his assets, deficits and current level of functioning. The vocational training, which is similar to that of skill training, involves the input from psychological theories and techniques.

Parent Counselling

Parents, who have a vital role in the upbringing of their mentally

handicapped children, go through a range of emotional and social conditions. These require adequate professional support to face problems. The teachers and other professionals, to help the parents, use the guidance and counselling techniques based on psychological theories.

Unit Summary

Psychology is defined as follows:

- It is the science of human and animal behavior; it includes the application of this science to human problems.
- As a science, psychology is comprised of systematized knowledge that is gathered by carefully measuring and observing events.
- As the definition indicates, psychology has an applied side. The application of knowledge to practical problems is an art and a skill for doing things, which is acquired by study, practice and experience.
- The word 'behaviour' in the definition of psychology refers to any thing a person or animal does that can be observed in some way. Defining psychology, as the study of behaviour does not exclude mind and other internal processes from the field of psychology. A person's behaviour is the avenue through which internal mental events can be studied.
- Psychology is not the only branch of knowledge, which studies human and animal behaviour. Anthropology, sociology, economics, political science, geography and history also study various aspects of behaviour and together with psychology, comprise the group of knowledge are as known as the behavioural sciences.
- Psychology includes General psychology, Abnormal psychology, Social psychology, Industrial/organizational psychology, Educational psychology, Clinical psychology, Physiological psychology, Experimental psychology, Developmental psychology and Comparative psychology as its branches.
- Like any other branches of science, psychology has wide scope in its application and utility in the areas of understanding human being, understanding professionalisation of persons, grading and classification of human abilities, community services, promoting understanding of abnormal individuals and disabled persons,

promoting adjustment mechanism, promoting guidance and counselling and behaviour modification.

- Psychology has its application in the field of Mental Retardation. It helps in assessment, diagnosis, management, behaviour modification, classroom management, home management, vocational habilitation and parent counselling.

Check Your Progress

- Psychology covers cognitive and non-cognitive behaviours. (true/false)
- Non-cognitive behaviour emerges from ————————— and ————————— domains.

Match the following:

Non-cognitive behaviour	Fundamental principles of human behaviour
Physiological psychology	Founder of Psychology
General psychology	Study of nervous system
Welhelm Wundt	Affective and psychomotor domains

- Define psychology and its various aspects.
- Briefly explain the branches of psychology
- Discuss the scope of psychology
- Examine the application of psychology in the field of mental retardation.

Activities/ Assignments

- Refer books and prepare an essay on the application of psychology in the field of mental retardation.

Points for Discussion

After learning the unit write few points for group discussion.

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Points for Clarification

Write the areas, which need more clarification. Refer books. Take help from your teacher.

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PSYCHOLOGICAL ASPECTS

Unit–2

MOTIVATION

STRUCTURE

- Introduction
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- Definition of Motivation
- Basic Structure
  - ❖ Motivation as a goal directed behaviour
- Types of Motivation
- Maslow's Motivational Hierarchy
- Application of Motivation in the Field of Mental Retardation
- Unit Summary
- Check Your Progress
- Activities and Assignments
- Points for Discussion
- Points for Clarification

2

Motivation

Introduction

Persons with mental retardation need to be motivated by identifying their needs. This can be done by introducing teaching techniques based on learning theories which can help the persons with mental retardation to achieve the goal-directed alternatives. The study of this unit on motivation would help the vocational instructors to identify suitable goal-directed activity by proper assessment and to achieve it by implementing appropriate techniques.

Objectives

After learning this unit, you will be able to:
- Define motivation with examples
- Understand the basic structure of motivation
- Explain the Maslow's motivational Hierarchy
- Analyze the application of motivation in the field of mental retardation

Definition of Motivation

A girl wants to be a doctor. A man strives for political power. A person is great pain longs for relief. Another person is ravenously hungry and craves for nothing but food. A boy is lonely and wishes he had a friend. A man has just committed murder, and the police says the motive was revenge. A woman works hard at a job to achieve a feeling of success and competence. These are just a few of the motives that play so large a part in human behaviour. They run the gamut from basic wants, such as hunger and sex, to complicated, long-term motives, such as political ambition, a desire to serve humanity, or a need to master the environment.

These examples show us that behaviour is driven and pulled

toward goals. They also show us that such goal-seeking behaviour tends to persist. We need a term to refer to the driving and pulling forces, which result in persistent behaviour, directed toward particular goals. The term is motivation.

Historically, the word 'motivation' comes from the Latin root 'moveers', which means to move. Thus we can say that in its literal meaning, motivation is the process of arousing movement in the organism. Let us learn few definitions.

"Motivation refers to all those phenomena which are involved in the stimulation of action towards particular objectives where previously these were little or no movement towards those goal". (H. W. Bernard)

"The term motivation refers to the arousal of tendency to act to produce one or more effects". (Atkinson)

"Motivation is constant, never ending, fluctuating and complex and that it is an almost universal characteristic of particularly every organismic state of affairs". (Maslow)

Basic Structure

Motivation can arise from internal and external basis. People have basic physiological needs as well as needs for love, self-esteem and self-actualization. The physiological needs include hunger, thirst, a desire for sex and sleep. The physiological cause of hunger is the low blood sugar level that accompanies food deprivation creating a chemical imbalance. Because sugar is crucial to cellular activity, the body sends signals to the brain warning of a low blood sugar level, and the brain immediately responds by generating hunger pains in the stomach. Hypothalamus of the brain plays the main role in the eating behaviour of animals and human beings. Stimulation of lateral hypothalamus cause animals to start eating regardless of their blood sugar level and stimulation of the Ventromedial Hypothalamus (VMH) causes animals to stop eating. In its basic expression, taking food due to hunger is an intrinsic factor of motivation. But it is likely to be influenced by extrinsic factors. For example, one can choose the food one wants to eat, like a low caloric intake. Another example for extrinsic factor influencing motivation is self-esteem. Achievements are the key way to satisfy the need for self-esteem, for example, events like passing an examination or winning a sports event.

Motivation as a Goal Directed Behaviour

Psychologists find it simpler to think of any motivated behaviour to

follow a certain sequence called the 'motivational sequence', be it hunger, thirst or a need for approval. The motivational sequence involves:

$$\text{Need} \longrightarrow \text{Drive} \longrightarrow \text{Incentive} \longrightarrow \text{Reward.}$$

A need arises within the individual when a biochemical necessity is not satisfied. This need gives rise to a physiological condition and a state of arousal known as a drive. The driven organism in turn gets ready to respond to stimuli related to its aroused state. This stimulus is called incentives (an incentive is an object towards which motivated behaviours is directed). It provides a satisfaction for the aroused drive, that is, a reward. The motivational sequence occurs both for motivation arising out of intrinsic and extrinsic factors.

Types of Motivation

Motives, which clearly have a physiological basis such as hunger, thirst and sleep, are referred to as 'primary motives' because they serve to maintain bio-chemical/physiological balance of the body. Another broad group of motives identified are known as secondary motives.These are not based on the biological nature of the organism though there may be an expression of the individual's attempts to satisfy biological needs. These are learned or acquired during the individual's lifetime. The desires to own a car of a certain type or to receive an award of some kind are secondary motives.

Maslow's Motivational Hierarchy

Abraham Maslow, one of the founders of Humanistic Psychology, classified human needs in a hierarchy. Maslow conceived people's motives like the formation of a pyramid shaped structure, with physiological needs at the base and the need for love, achievement and understanding at higher level, reaching in self-actualization.

(i) The basic physiological needs such as food, drink, shelter and rest, which are to be satisfied by all.

(ii) On the next level, one seeks to satisfy his need for security from the stresses and uncertainties of life. Example: Looking for a steady source of income to take care for ones needs on all levels.

(iii) When the safety need is satisfied, one feels the need for belongings, for example, for affection towards another person or family.

(iv) The need for self-esteem is the need of a person to have the respect of others as well as self-respect.

(v) Cognitive needs are the persons need to know and understand his environment.

- (vi)   An aesthetic need is the need of a person to the sense of beauty and aesthetic value to his own efforts and imagination.
- (vii) Very few people feel the need for self-actualization. It is the need to find self-fulfillment or to reach a stage where all the potentialities have been maximized. Some of the characteristics of people who have reached this stage are honesty, creativity, acceptance of others and self, humour and sensitivity. Maslow called the self-actualization as achieving 'peak experience'.
- (viii) Maslow did not claim that a person's basic physiological needs have to be completely satisfied before he or she can achieve a higher level of fulfillment. However, if a person's basic physiological needs are met, that person may be in a better position to satisfy the emotional needs.

Application of Motivation in the Field of Mental Retardation

Due to the underdeveloped condition of the brain in the persons with mental retardation, the motivational process is very much diminished when compared to that of normal people. Many times, goal-directed behaviour is not observed in children. Though the intrinsic aspect of motivation shall remain with the persons with mental retardation, the extrinsic may not always be present. Hence, mentally handicapped children need to be motivated by identifying their needs and supplying the drive. This can be done by introducing teaching techniques based on learning theories, which can help the mentally retarded children to achieve the goal-directed alternatives.

Thus the study of motivation will help the DVTE(MR) trainees (a) To identify suitable goal-directed activity by proper assessment, and (b) To achieve it by the implementation of appropriate teaching techniques.

Unit Summary

- Motivation refers to the driving and pulling forces, which result in persistent behaviour directed toward a particular goal.
- Motivation is defined by many psychologists in different ways. It is a process of arousing movement in the organism.
- Basic structure of motivation consists of:
  (a) intrinsic and extrinsic factors
  (b) arousal and its relation to efficiency and effectiveness of behaviour
- Motivation is a goal-directed behaviour. A motivational sequence proceeds in the following way:

  Need $\longrightarrow$ Drive $\longrightarrow$ Incentive $\longrightarrow$ Reward.

- There are two types of motivation – primary and secondary.
- Maslow's Motivational Hierarchy has the basic physiological needs at the basic and need for self-actualization at the apex.
- The study of motivational mechanism is helpful to DVTE(MR) trainees to improve the level of motivation in children with mental retardation. This is done by implementing suitable teaching techniques, which are based on the principles of learning theories.

Check Your Progress

Match the following:

Physiological motives	Peak experience
Abraham Maslow	Sense of beauty
Self-actualization	Humanistic psychology
Esthetic needs	Primary motives

- Motivation can arise only from internal basis (true/false)
- The motivational sequence involve ————, ————, ————, ————,
- Name two types of motivation.
- Give three examples for physiological needs
- Give two examples for secondary motives

- Basic structure of motivation consists of
  - *(a)* _____
  - *(b)* _____
- Define motivation with examples
- Explain the types of motivation
- Discuss the Maslow's Motivational Hierarchy with examples.

Assignments and Activities

- Analyze your own motivation to be a vocational instructor and share with your friends.
- Workout few strategies to motivate persons with mental retardation who do not want to work.
- How will you motivate the parents, who insist only on teaching academics and discourages teaching vocational skills?

Points for Discussion

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Points for Clarification

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PSYCHOLOGICAL ASPECTS

Unit–3
ATTENTION

STRUCTURE

- Introduction
- Objectives
- Definition
- Aspects of Attention
- Factors Affecting Attention
- Problems of Attention
- Attention in Persons with Mental Retardation
- Unit Summary
- Check Your Progress
- Activities/Assignments
- Points for Discussion
- Points for Clarification

3

Attention

Introduction

After learning the importance of motivation in life, we are going to discuss various aspects of attention in this unit. At any given moment, our sense organs are bombarded by a multitude of stimuli, yet we perceive only a few of them clearly. Were you aware of the background noises in your environment until you read this sentence? Yet input from the ears was coming in all the time. Attention is the term given to the perceptual processes that select certain inputs for inclusion in our conscious experience, or awareness, at any given time.

Objectives

After learning this unit, you will be able to:
- Define attention and discuss its various aspects
- Describe factors affecting attention
- Analyze the problems of attention
- Examine the attention in persons with mental retardation

Definition

Since we cannot process all the information in our sensory channels, we filter, or partially block out, some inputs while letting others through (Treisman, 1969; Lindsay and Norman, 1977).

Attention is a process that selects certain inputs for inclusion in the focus of experience (C.T. Morgan and R.A. King, 1986).

Aspects of Attention

The process of attention divides our field of experience into a focus and a margin. Events that we perceive clearly are at the forms of experience. Other items are perceived dimly; we may be aware of their presence, but only vaguely so. These items are in the margin of attention. Psychologists regard attention as having three related aspects.

1. *Attention as a postural response:* There is always a mobilization and adjustment of the various parts of the body and sense organs towards the object of attention to receive a particular stimuli, for example, postural adjustment of a physician listening with a stethoscope or a person who observes a match.

2. *Attention as clearness in consciousness:* This is possible only through introspection. At any time, some things have the focus of our attention while others are in the periphery or not in our awareness.

3. *Attention is set towards action:* When we attend, our whole body responds in some way or other and assumes a state of readiness or set. Set is the motivating condition influencing the direction of reaction. It is also an important variable in determining the speed of reaction.

Factors Affecting Attention

The selective process by which we attend to a stimulus is determined by various factors. These conditions are of two types:

Objective Factors: Objective factors influence the qualities and characteristics inherent in the objects which makes us to select it. Some common objective factors in this regard are as follows:

(i) *Nature of Stimulus:* That is, whether it is visual (seeing), gustatory (taste), olfactory (smell), auditory (hearing) or tactile (touch) stimulus. Experiments have shown that form, colour and sound attract more attention. Melodious voice receives more attention than non-melodious voice.

(ii) *Intensity:* High sound, excessive pressure, bright colour and acute pain attract more attention. Here, the selection depends on the nature of our sense organs and on the greater amount of energy stimulated.

(iii) *Size:* Objects, which are big or large in shape or size, attracts more attention than something small, for example, full-page advertisement in papers.

(iv) *Contrast:* Attention towards an object does not depend on size alone but also on its background or contrast. Example, a small black spot on a face with fair complexion.

(v) *Repetition:* A weak stimulus frequently repeated may be very effective but if it is overdone it may lead to boredom resulting in fading from the focus of attention. Repeating a

the perceptual field into different units also. So, at one grasp it is possible to attend to two or three groups each having 4 to 5 units. It is a familiar word or a meaningful word containing 10 or more letters it may be grasped in one act of attention. This is because the mind rapidly supplies certain parts, which have not, been actually noticed. Persons, having problems with attention, will have difficulty to retain span of attention.

(ii) **Shifting of attention:** Individual's attentive adjustment is not stable and fixed but shifts from one aspect to another. We can attend to a thing continuously for a few seconds only. Now and then attention will be diverted, but will be brought back immediately. The eyes cannot gaze at anything for any length of time beyond a few seconds, such shifts occur due to fatigue effecting the sense organs. The fluctuation varies depending on the individuals and also because of the selective value of other nearby stimuli.

(iii) **Distraction:** It is the inability to concentrate due to an unrelated stimulus that draws attention. It is paying attention to something that is not a part of the main activity at the moment. Attention shifts involuntarily as it is impossible to ignore certain distracting stimuli. When there is conflict between two stimuli, various factors will determine the stimulus to which attention is given. If one stimulus has particular advantages, for example: being unexpected or interesting, it will succeed in drawing attention. Distraction may also occur because of some conflicts in one's mind. These pre-occupations will take away the attention from the job at hand. The obvious effect of distraction is reduction in efficiency. But some experiments have proved improvement of performance during distraction. All external stimuli need not be a distraction. For example, music, which is set to the rhythm, corresponding with the work and movement of workers. Here, it becomes useful and may increase the output also. Certain types of pleasant background music can be enjoyed automatically without conscious attention and as it keeps the person in a pleasant and cheerful state, it helps in reducing fatigue. Many distractions are internal, worries and fears can distract one's attention. Motivation has an important role in controlling distraction of attention.

(iv) **Division of attention (Range of attention):** People have

wondered whether we can attend to more than one thing at a time. It is proved that we can attend to only one thing at a time. We may see people who keep talking and at the same time do some activities with their hands, for example: knitting. This does not mean that two things are being attended to. Often one is automatic and does not require any attention. If something goes wrong (knitting), then talking or listening will be stopped. Some times we may appear to be attending to more than one stimuli because there is rapid shifting from one to the other or two objects are parts of only one main object. It is the composite unit that the individual pays attention to.

Attention in Persons with Mental Retardation

Mentally retarded persons are known to have low attention span. They view less numbers of objects at one glance than non-retarded persons. The fluctuation of attention is found to be more than the normal persons. Internal and external distractions easily distract the retarded persons. To improve the attention of persons with mental retardation the educator should use big and attractive teaching-learning aids. The material used should be presented repeatedly. As moving objects attract attention easily, the introduction of movement in the teaching aids will help to draw the attention towards the objects. To avoid the monotony (boredom), some changes should be made in the object (stimulus). The classroom should be kept free from out side distraction, for example, noise and frequent entry of strangers. Door curtains can be used to minimize the possibility of distraction in the classroom. The room should be well ventilated and have sufficient light to minimize the bodily discomfort. The student should be highly motivated towards the material to be learnt. The information is to be presented in very simple manner repeatedly to make them interested in the task.

Unit Summary

- Attention is the term given to the perceptual processes that select certain inputs for inclusion in conscious experience, or awareness, at a given time. The processes of attention divided our field of experience into a focus and margin.
- Attention involves adjustment of sense organs, posture and muscle tensions.
- The selective process of attention is determined by
  (a) Objective factors such as nature of stimulus, intensity,

size, contrast, repetition, movement, change, location, isolation, systematic form and novelty.

(b) Subjective factors such as interest, organic state, motivational factors, mental set, aim and habits.

- Problems of attention are span of attention, distraction of attention, shifting of attention and division of attention.

Check Your Progress

- Novelty and intensity attract attention. Give two examples.
- Organic state affects attention. Give an example.
- Define attention.
- Explain three related factors of attention.
- What are the objective factors affecting attention?
- What are the subjective factors of attention?
- Explain the problems, which affect attention?
- Explain few strategies to increase the attention span of persons with mental retardation.

Activities/ Assignments

- Keep some objects on a table. Take five individuals with mental retardation near the table.
- Ask them to pick up one object. Have a discussion on the reason of selecting the particular object.
- You pick up an object and analyze what attracted you to select the object.

Points for Discussion

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Points for Clarification

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fundamental theme with minor variations is more effective than repeating the original presentation exactly.

(vi) Movements: Anything that moves, even if it is very small, is able to draw our attention more than stationary objects, for example, infants attending to tiny insects that move. The influence of movement as a stimulus is used by business man who advertise through moving electric lights.

(vii) Change: Attention cannot be sustained for a long time on some particular object. Hence, when there is a change in stimulus in attention. For example, change in advertisement from time to time catches attention more than watching the same advertisement again and again.

(viii) Location: In the visual field, the most effective location is just in front of the eyes in the center of the page. It has been found that advertisement given on the front page or on the upper half of any page and on the left side receives more attention.

(ix) Isolation: A man sitting alone in a corner of the park and is not mixing with other individuals draws attention as he is seen separately.

(x) Systematic form: Of the various things that may strike our eyes, or ears we may attend to those, which have definite systematic pattern or rhythmic flow. Example, melodious rhyme sung softly. In the middle of lot of coloured figures if there is a figure with definite geometry and well planned shape it may draw one's attention. According to Gestalt School of Psychology, the brain and its functions are so structured and organized that there is an innate and fundamental tendency to see balanced and rhythmic patterns.

(xi) Novelty: Sounds, smell and taste to which we are accustomed may go unnoticed but a strange stimulus is observed immediately. A familiar item in a new surrounding catches one's attention easily.

Subjective Factors: Even the strongest of the objective factors suffers limitations in its effectiveness when several internal conditions are not present. The habits, interests and attitudes that we develop in the course of our lives influence the process of attention. Some of the major subjective factors influencing attention are as follows:

(i) Interest: Interest draws the individual's attention to an object. People vary in their responses to the same stimulation

because a person's interest predisposes him to a particular response.

(ii) *Organic state:* The stimulus that holds our attention is the one that relates to the biological need at the moment. If you are tired, the stimuli related to resting will be most affected.

(iii) *Motivational factors:* A mother may not be disturbed by a lot of noise but if her sick child raises a faint cry, her attention may get attracted at once. The dominant emotion at a given moment affects the process of attention.

(iv) *Mental set:* This means the tendency of the mental condition. A person tends to attend to an object towards which his mind is set.

(v) *Aim:* Every one has some immediate and ultimate aim. A student's immediate aim may be to pass a test while the ultimate aim may be to earn a living. So a student whose aim is to pass a examination will be concerned with the books.

(vi) *Habit:* Development of a habit influences the selection of a stimulus. A person develops a habit of attending to necessary things and not attending to unnecessary things. Both these habits help man in his daily routine.

(vii) *Social suggestions:* People tend to attend to what is suggested to them. This is probably because they wish to avoid discomfort.

Besides the above, factors like heredity, education and training have a wider influence on attention. The family, school, society, physiological conditions, desire and purpose of the person concerned also affect his attention. A sharp division of objective and subjective factors at any particular situation is not possible. Advertisers use both these factors for displaying their goods effectively. The effectiveness of objective conditions depends upon one's subjective make-up. There can never be a condition, which is purely subjective or objective as both the physiological and psychological factors are important in attention.

Problems of Attention

(i) *Span of attention:* Span of attention is the amount of material that can be grasped after a single brief exposure. The materials used are typically random digits or letters. The total number one can attend is quite limited. There are individual differences but usually 6 to 7 digits can be attended to at a glance. The mind has a capacity to organize

PSYCHOLOGICAL ASPECTS

Unit–4
PERCEPTION

STRUCTURE

- Introduction
- Objectives
- Stages
- Definition
- Principles of Perception
- Factors Affection Perception
- Anomalies of Perception
- Perception and its Relation to Mental Retardation
- Unit Summary
- Check Your Progress
- Activities/Assignments
- Points for Discussion
- Points for Clarification

4

Perception

Introduction

Perception is an important factor in concept formation. Due to the perceptional problems, persons with mental retardation have difficulties in concept formation. This unit explains in detail various aspects of perception.

Objectives

After learning this unit, you will be able to:

- Define perception
- Discuss various stages involved in perception
- Describe the principles of perception
- Analyze the factors affecting perception
- Understand the anomalies of perception
- Study perception and its relation to mental retardation

Stages

Perception refers to the way the world looks, feels, tastes, or smells. In other words, perception can be defined as whatever is experienced by a person. Perceptual process invariably involves three stages. There are sensation, perception and the classification.

- Sensation is the first stage in which information from external world reaches us.
- Perception is the next stage where analysis of information is done. This is a complex process involving past experiences stored in memory.
- Classification, the third stage, involves grouping the characteristics of the perceived objects into categories.
- Perception uses both sensory data from present stimulation and the learning gained from past experience.

Definitions

Perception is defined in different ways. Some of the definitions are:

- Perception is the process by which an organism interprets sensory input so that it acquires meaning (Lefton, 1985).
- Perception is the process of knowing objects and objective events by means of the senses (Atkinson et. at, 1988).
- Perception is a psychological function which enables an organism to receive and process information in the state of an alternation in his environment.
- A perception is nothing more than a group of sensations.

Principles of Perception

When several objects are present in the visual field, we tend to perceive them as organized into patterns or groupings. The Gestalt psychologists studied such organization intensively in the early part of the 19th century. They emphasized that organized perceptual experience has properties, which cannot be predicted from a simple analysis of the components. In other words, Gestalt psychologists said that 'the whole is more than the sum of its parts".

Perception gets organized in very systematic manner. Some of the laws or principles of perception are given below :

Proximity or nearness: The law of proximity says that items, which are close together in space or time, tend to be perceived as belonging together or forming an organized group.
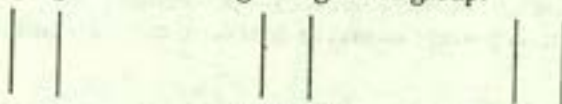
Figure (a).

In Figure (a), we see three pairs of vertical lines instead of six single lines.

Similarity: This principle is evident when objects of similar size, shape or colour lend to be grouped together. In the auditory area, sounds of similar tone and intensity are grouped together.
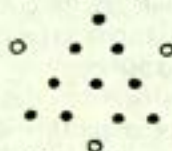
Figure (b).

Figure (c).

In Figure (b), most people see one triangle formed by the dots with its apex at the top and another triangle formed by the rings with its apex at the bottom. They perceive triangles because similar items – the dots and the rings – lend to be organized together. Otherwise as a six-pointed star, like Figure (c) where all the dots are the same.

Grouping according to similarity, however, does not always occur.
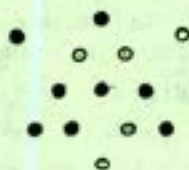

Figure (d).

In Figure (d), neither the circles nor the dots by themselves form a symmetrical pattern. The law of good figure says that there is a tendency to organize things to make a balanced or symmetrical figure that includes all the parts. In this case, such a balanced figure can be achieved only by using all the dots and rings to perceive a six-pointed star. The law of good figure wins out over the law of similarity because the rings by themselves or the dots by themselves do not form symmetrical good figures.

Continuation: It is the tendency to perceive a line that starts in one way as continuing in the same way. For example, a line that starts out as a curve is seen as continuing on a smoothly curved course. A straight line is seen as continuing on a straight course or if it does change direction, as forming an angle rather than a curve.

Closure: The law of closure makes our perception more complete than the sensory stimulation that is presented. The law of closure refers to perceptual processes that organize the perceived world by filling in gaps in stimulation. By the action of the processes, we perceive a whole form, not disjointed parts. In Figure (e), for example, the left drawing is seen as a circle with gaps in it and the right drawing as a square with gaps in it – not simply as disconnected lines.
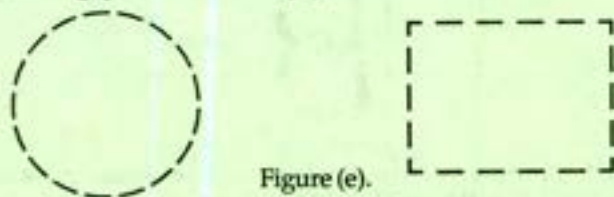

Figure (e).

In all these laws of organization, the principle of the Gestalt psychologists that "the whole is more than the sum of its parts" can be observed at work. In other words, the perceived organization has properties of its own that are not simply the result of adding together the atoms of individual sensations.

Nature: The sources of stimuli from the outer world determine the nature of perception i.e. the stimuli may enter through the sense of vision (visual), or through hearing (auditory), or smelling (olfactory), or testing (gustatory) or through touching (tactile).

Factors Affecting Perception

People differ in the ways that they process sensory inputs to give rise to what they experience. Thus there are individual differences in perception. Among the factors that influence an individual's perception are:

(a) Perceptual learning
(b) Set
(c) Motives and needs
(d) The individual's characteristic perceptual – cognitive

Perceptual learning: Eleanor Gibson has defined perceptual learning as "an increase in the ability to extract information from the environment, as a result of experience or practice with the stimulation coming from it" (Gibson, 1969). Gibson gave many examples that show how perception can be moulded by learning. She sited the competence of people trained in various occupations to make perceptual distinctions that untrained people cannot make. Experience is the latest teacher for perceptual skills; usually they can not be learned from books.

Set: It refers to the idea that we may be "ready" and "primed for" certain kinds of sensory input. Such expectancies, or sets, vary from person to person and are a factor in both the selection of sensory inputs for inclusion in the focus of attention and in the organization of inputs.

The figure provides an example of set in perceptual organization. Is it the letter B or the number 13? If this drawing is included in a

series of two-digit numbers, people will tend to report that they perceive the number 13. But other people, who have seen the figure in the context of letters, will report that it looks like a 'B' to them. In one case, an expectancy, or set, has been acquired for numbers; in the other, for letters.

Motives and needs: In the late 1940s and through 1950s, many psychologists turned their attention to the ideas that motives and needs influence perception. They said that we may attend to and organized our sensory inputs in ways that match our needs. For example, people who are hungry thirsty or sexually aroused are likely to pay attention to events in the environment, which will satisfy these needs.

Perceptual cognitive styles: People are said to differ in the ways they typically and characteristically process information. The general processing strategies that characterize different people are known as perceptual – cognitive style. Among the many dimensions along which people vary in perceptual cognitive style are:

(a) The degree to which their perceptions are flexible or constricted and

(b) Their field dependence or field independence.

People whose perceptions are at the flexible end are said to have a wider focus of attention, to be less affected by interfering influences and to be less dominated by internal needs and motives than are people at the constricted end.

The dimension of field dependence – field independence has to do with the perception of wholes or parts. A field dependent person is said to unify and organize sensory inputs so that it is difficult to break down what is perceived into its parts or elements. Field independent people, who emphasize the parts in perception, do the reverse.

Anomalies of Perception

Perception basically is the ability to interpret the information received through the sense organs. Due to certain mental illness, neurological conditions, and mental set, perception is likely to be distorted. Some of the common anomalies of perception are:

Illusion: As described in the definition, a stimulus is essential to perceive. Sometimes, through we perceive a stimulus; it is misinterpreted due to the mental set at that time. This is known as 'illusion'. Illusion is an incorrect perception because they do not correspond to the objective situation as shown by physical

measurement. These are illusions concerning most of the basic feature of the physical world including distance and motion as well as shape, size and direction. For example, seeing rope as a snake in dim light in a frightened mental set.

Hallucinations: They are another kind of perceptual disorder. Hallucinations differ from illusions because it occurs in the absence of a stimulus. Hallucination is generally confined to the mentally ill, to those under the influence of drugs or alcohol and to those with organic brain damage. Like illusion, hallucinations occur in all sensory modalities.

Perceptual impairments like blindness; deafness, developmental and learning disabilities have perceptual limitations. The persons with perceptual impairments will have to learn methods of compensation and need to be retrained. Dyslexia is impairment in reading, for example, '752' may be read as '527'. Dysgraphia is impairment in writing, for example , 'was' might be written as 'saw'. The commonest tests used for assessing perceptual defects are Bender Gestalt Test and Benton Visual-motor Retention Test (BVRT).

Perception and its Relation to Mental Retardation

The mentally handicapped suffer from an under developed condition of the brain. As such, they differ in their perceptual ability when compared to their normal counter parts. Their ability to perceive wholly and correctly be further restricted if mental retardation is coupled with damage to any of the sense organs. As for people working in the field of mental retardation, it is important that they are familiar with the normal process of perceptions, characteristics of perception, determiners of attention, perceptual fields and errors in perceptions. By gaining a complete understanding of these topics, they will be able to know in what way do the mentally handicapped population differ from the normal population. Identifying faulty perception will help the Special Educators to understand the children as well as in the developing of unique teaching methods tailored to benefit the individual in question.

Unit Summary

- Perception is the process by which an organism interprets sensory input so that it acquires meaning (Lefton, 1985).
- Perception is the process of knowing objects and objectives events by means of the senses (Atkinson et. al., 1988).
- Principles of Perception are figure and ground and grouping by similarity, proximity, closure and continuity.

- Factors affecting perception are perceptual learning, set, motives, needs and perceptual-cognitive styles.
- Anomalies of perception are: illusion and hallucinations.
- Identifying faulty perceptions will help the vocational instructors to understand the persons with mental retardation and to develop unique teaching methods to benefit the individual in question.

Check Your Progress

- _____ is the first stage of perception.
- A perception is a group of _____.
- Define perception.
- What are the stages of perception?
- What do you mean by proximity?
- Explain the principles of perception.
- What is closure? Explain with an example.
- What are the factors affecting perception?
- What do you mean by perceptual learning?
- Explain perceptual-cognitive styles.

Activities/ Assignments

- Prepare a chart on perception with diagrams, examples and pictures.
- Prepare a poster on perception with an appropriate caption.

Points for Discussion

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Points for Clarification

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PSYCHOLOGICAL ASPECTS

Unit–5

LEARNING

STRUCTURE

- Introduction
- Objectives
- Definition
- Process of Learning
- Theories of Learning
    - ❖ Classical conditioning
    - ❖ Operant conditioning
    - ❖ Cognitive learning
- Factors Affecting Learning
- Transfer of Learning
- Types of Learning
- Unit Summary
- Check Your Progress
- Activities/Assignments
- Points for Discussion
- Points for Clarification

5

Learning

Introduction

Learning plays an important role in adjusting to their environment. After birth the child is constantly confronted with a variety of needs and demands. With the advancement of age, physical and neural development occurs and the child begins to learn more. He begins to recognize the things and he also learns to discriminate them.The field of learning is very broad. The entire behaviours of human being – perceptual, motor and expressions of motives, are controlled and governed by learning. The child begins to understand the world around him through learning.Thus we can say that learning starts from the moment of birth and continues till death. This unit gives you an elaborate explanation on various aspects of learning.

Objectives

After learning this unit, you will be able:
- Define definition.
- Describe process of learning.
- Explain theories of learning.
- Analyse factors affecting learning.
- Understand the nature of transfer of learning.
- Able to discriminate the types of learning.

Definition

Learning is defined by scholars in different ways:
- "Learning is a process which brings about a change in the individual's way of responding as a result of contact with aspects of environment".
- Morgan and King (1978) "defines learning as any relatively

permanent charge in behaviours which occurs as a result of practice and experience".

- "Learning refers to a relatively permanent change in behaviour potentiality that occurs as a result of reinforced practice" (Kimble, 1961, 1967).

These definitions focuses on three important factors:

1. Learning is relatively permanent change of behaviour.
2. This change comes in behaviour through practice and experience.
3. Learning is not observed directly but it is inferred from observable behaviours.

Process of Learning

Learning is the process by which the individual acquires various habits, knowledge and attitudes that are necessary to meet the demands of life in general. When complete learning has taken place, the best way of responding to a situation becomes permanent. Thus learning may be considered as the process of effecting changes in the individual's behaviour and making such changes permanent. When we say that the learning process makes permanent changes in behaviour, it does not mean that no further change is possible. In the light of new experiences further changes can take place. Also what has been learnt is subject to the laws of remembering and forgetting. The following points are important while discussing the process of learning:

(a) Learning means modifying and changing one's behaviour with reference to achieving a particular goal.

(b) Learning means establishing new relationship between a stimulus and response. This would also include making new neural connections; the 'synapses' make this possible. By learning we are able to change the natural responses to certain stimuli, which are obtained because of our innate structure.

(c) Learning means the development of a method for dealing with our problems. It is the development of a technique.

Thus learning helps us to react to the environment in more advantageous manner. Taking all these points into consideration, learning may be further considered as the process of effecting a change in behaviour, which produces an improvement in our relations with the environment.

Theories of Learning

Several theoretical explanations have been proposed to explain

process of learning. These include classical conditioning, instrumental or operant conditioning, cognitive theories and social learning theory. These theoretical explanations describe learning in different ways. Classical conditioning emphasizes on stimulus response relationships and explains learning as an association process. Instrumental conditional or operant conditioning focuses on relationship between a response and its consequences. Cognitive theories emphasize the importance of perception and attention in learning. Social learning theories emphasis that learning is influenced by the context in which it occurs. By observing models, individuals try to imitate and thus they learn. In this unit these theoretical explanations are discussed.

Classical Conditioning

Classical conditioning is a form of learning in which an organism learns a new association between two stimuli i.e. neutral stimulus and other stimulus that already elicits a reflexive response. This is the simplest from of learning. Russian psychologist, Pavlov proposed the principles of classical conditioning. Pavlov conducted an experiment on dog and evidence in favour of classical conditioning. In the beginning of the experiment Pavlov presented food to the dog and dog secreted saliva. After repetition of this procedure Pavlov noticed that secretions of saliva started before the food was put in the dogs mouth. Then he produced food and neutral stimulus (sound of bell) simultaneously. This procedure was repeated again and again. After that Pavlov gave some trials to dog in which bell preceded the occurrence of food, in this situation dog started saliva secretion only on the sound of bell.

Pavlov used some technical terms to explain this principle

Food	Unconditioned stimulus (UCS).
Saliva secretion for food	Unconditioned response (UCR).
Sound of bell	Conditioned stimulus (CS).
Saliva secretion for bell	Conditioned response (CR).

In this paradigm Pavlov rang the bell (CS) and after an interval of 5 seconds he placed the food in the mouth of the dog. In the first trial, the sound of bell could not be able to produce saliva until food was not placed in his mouth. After repeated trials for several days, bell (CS) and food (UCS) both were presented in close proximity. After repeated exposure bell is presented alone (CS) and dog salivated (CR). This experiment reveals that stimulus response connection has been established. The dog finally learnt to respond (CR) to the sound of bell (CS).

> *The technique of establishing a response to a conditioned stimulus is called classical conditioning process.*

The learning of conditioned response is gradual and is strengthened with repeated trial. The other aspects of classical conditioning also need attention.

Acquisition: For acquisition, repeated pairings of a neutral stimulus with an unconditioned stimulus results in behavioural changes in response to the conditioned stimulus. When CS and UCS are paired, it is called a conditioned trial. In conditioning paradigm interval between CS and UCS is crucial. Four patterns of classical conditioning have been discussed

- *Simultaneous conditioning:* When two stimuli are presented at the same time.
- *Backward conditioning:* In this the conditioned stimulus comes on after the unconditioned stimulus.
- *Delayed conditioning:* In this the conditioned stimulus stays on until the conditioned stimulus comes on.
- *Trace conditioning:* In this conditioned stimulus comes but does not stay on, and ends then unconditioned stimulus comes.

Extinction and spontaneous recovery: When an unconditioned stimulus is not presented with conditioned stimulus repeatedly the conditioned stimulus extinguishes the property of eliciting conditioned response. This is called extinction. An extinguished response is out of sight, but not out of mind. Pavlov opined that complete extinction of CR is not possible. Some times experimentally extinguished response reappears again after a period, which is called spontaneous recovery. With further acquisition training, a conditioned response can be strengthened. However, at this stage, if unconditioned stimulus is not paired with conditioned stimulus, conditioned response is weakened.

Stimulus generalization: When conditioned response has been acquired to a particular stimulus, similar stimulus may produce the same response. This is known as stimulus generalisation. For example if a child is bitten by a big dog, he may develop fear even to small dogs. Similarly if a dog is trained to salivate to tone, it may salivate after hearing any type of tone such as electric bell, call bell or buzzer etc.

Stimulus discrimination: Stimulus discrimination is a conditioning process in which an organism learns to respond differently to stimuli that are different from the conditioned stimulus.

If organism is trained to respond after a particular tone and if experimenter changes the tone, organism does not respond. It indicates that organism has learned to discriminate between two types of tone.

Operant Conditioning

Thorndike in America developed instrumental conditioning. It is another approach to the study of learning. In instrumental conditioning the relationship between response and its consequences is learned. In instrumental conditioning reward or reinforcement is contingent upon the response of the organism. Respondent may be involved in several responses but only one response ensures the reward, thus reinforcement is contingent up on this particular response. Hence the respondent will learn this behaviour. Instrumental conditioning has been studied in several ways where respondent learns the appropriate response to get reward.

Later on Skinner rejected the descriptive term instrumental conditioning and he propounded operant conditioning to explain learning. Skinner focused the fact that behaviour operates upon the environment to generate consequences. Operant is any behaviour that is produced by an organism, which has observable effects on the environment. If the effects or consequence is rewarding the same operant or response will reappear and rate of responding will be increased. However, if behaviour is not reinforced or punished then possibility of occurrence of that behaviour diminishes and that behaviour will disappear.

> *Punishment is different from negative reinforcement. Punishment is the condition in which organism receives an aversive stimulus after performing a response.*

In this situation response is eliminated or suppressed. For example if child touches a burning lamp it produces pain to child, which punished the preceding response. Now the same child next time will avoid touching the burning lamp. Responses that receive immediate punishment are eliminated and responses, which receive delayed punishment, are suppressed.

> *Operant conditioning advocates that any behaviour persists because some reinforcement persists.*

If organism has acquired a response, that response may be maintained by making provision of reinforcement. Organism can also learn when to make a previously successful response. Organism

learns the meaning of presence of signal that whether he/she will get the reward after performing an act. The situations /signals which may reinforce future responses are known as discriminative stimuli. The stimulus that informs us about the presence of reinforcer is known as positive discriminative stimulus and signal, which is the indicator of no reinforcer available, is known as negative discriminative stimulus. Organisms acquire capacity to learn to discriminate between these two situations. The discriminative stimulus gives us information. It sets the stage for us to make a response. The discriminative stimulus does not elicit the response but simply gives indication that reinforcement will be available if the response is made. **Operant conditioning is a practical approach for developing new behaviour models to the organism (Human and animal both). The basics of operant conditioning are reinforcement and punishment.** In children most common from of reinforcement is social. Children repeat those behaviours, which give them pleasure. Normally parent and teacher are most important source of reinforcement in society. At early stages child gets reinforcement from these figures but as he matures source of reinforcement changes. Tangible (money, sweets or any external form) and symbolic (praise, feedback) reward are used to strengthen the behaviour in the paradigm of operant conditioning.

1. Concept of reinforcement: Skinner emphasized the role of reinforcement in learning. The fundamental principles of operant conditioning is that if organism performs behaviour and receives a reinforcement, then the probability of occurrence of the behaviour in future is increased. Reinforcers maintain the behaviour. Contingent reinforcement strengthens the response while contingent punishment suppresses the response. Implication of use of reinforcement can be seen in our own behaviour too. We learn a great number of behaviour because we have been reinforced for that. For example students work hard for their study because they find it reinforcing in form of grade secured and appreciation from teachers and parents. When the reinforcement is given non-contingently it has little effect on behaviour. Behaviour can be positively or negatively shaped by appropriate use of reinforcement.

Reinforcers, which can change subsequent behaviour, have a number of complex properties. Reinforcement is used to strengthen S-R connection and increases the probability of learning a task. It provides a motivation for learning and thus is significant in learning. Whether behaviour response is positively or negatively reinforcing

depends on the effect it has on behaviour. Similar reinforcement cannot be positively reinforcing to various individuals. For example, having a chocolate will be positively reinforcing for some one, but to a child who dislikes the chocolate because of tooth problem, chocolate is punishing. Similarly pain is usually punishing, but if it gives positive effect, it will be positively reinforcing or rewarding. There are conditioned reinforcers, which influence much human behaviour. Money, grades, praise smiles of approval and various kinds of status symbols are the examples of conditioned reinforcers, which give shape to our learning and behaviour. When conditioned reinforcers control a variety of behaviours these are termed as generalized conditioned reinforcer. For example money is generalized conditioned reinforcer as it controls so much of human behaviour. Teachers and parents often find money or token and other conditioned reinforcers more effective than any other reinforcer. Conditioned (token) reinforcer serves the following characteristics:

- Any stimulus, which is under control of parent or teacher, can be used for conditioned reinforcer.
- Conditioned reinforcers can be given quickly.
- Conditioned reinforcers and portable.
- The effect of conditioned reinforcer is more immediate.

In several educational institutions "token economics" have been planned based on these principles. This system of reinforcement is also used in modifying behaviour of parents in hospitals. Preferred activities are also used as positive reinforcers.

David Premack (1965) proposes that a reinforcer need not a substance from the environment but could be a preferred activity; this is termed as Premack principle. This principle emphasizes the role of valued activities behaviour in reinforcing several other activities. This principle is useful for self-management also.

There are two types of reinforcement :

- Primary reinforcement includes material rewards, snacks and foods. Primary reinforcement brings response spontaneously.
- Secondary reinforcement includes social rewards such as praise or verbal feedback.

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*A reinforcer that enhances the probability of occurring a respone for which it is offered is known as **positive reinforcer**. Negative reinforcement causes the avoidance or termination of painful event. The condition of not receiving an aversive stimulation is termed as **negative reinforcement**.*

Both positive and negative reinforcers increase the probability of the response that precedes them. Positive reinforcement results better for learning a new response or maintaining a present response, whereas negative reinforcement results better for getting people to avoid some undesirable responses that have been performing frequently. It strengthens not making that response.

2. Schedule of Reinforcement: Sometimes when child performs better, he is appreciated and   sometimes not. Important point is that behaviour is not always followed by the reinforcement and it may vary according to variety of patterns. Patterns of reinforcement, linked with an instrumental response, are termed as schedules of reinforcement or schedules of punishment. Schedules of reinforcement can be of several types.

(a) *Intermittent reinforcement:* When reinforcement is not given continuously, but given only at intervals, it is called intermittent schedule of reinforcement. Here the organism is not reinforced every time he makes a required response but only at times.

(b) *Continuous reinforcement:* It refers to that reinforcement which is given to the organism every time he makes the appropriate response. Partial reinforcement schedule has been extensively studied. Responses can be reinforced after a certain number of responses. It is called ratio schedule. When after a specified period of time responses are reinforced, then it is known as interval. In each case, there can be either a constant (fixed) pattern of reinforcement or an irregular (variable) pattern. Based on this, four major types of schedules have been discussed.

(c) *Fixed ratio schedules:* In this schedule response is reinforced after performing a fixed number of responses. This reinforcement schedule is effective for rapid learning of a given response.

(d) *Variable ratio schedule:* In this schedule number of responses required to get reinforcement varied from one situation to another situation. Sometimes organism is reinforced after performing 10 responses and sometimes he may be reinforced only after performing 5 responses. Variable ratio schedules also generate the height rate of responding.

(e) *Fixed interval schedule:* In this schedule reinforcement is given for the responses occurred after a fixed amount of

time. Subject has to wait for a fixed time to get reinforcement. Other responses in between, before the time interval is over, are not reinforced.

(f) *Variable interval schedule:* In this schedule reinforcement is designed to administer on variable intervals. Some times, subject can get the reward immediately and some times he has to wait longer to receive a reward. Learning is better under variable interval schedule than under fixed interval schedule.

3. *Punishment:* Punishment is also used to eliminate undesirable or maladaptive behaviours. Punishment decreases the probability of occurrence of responses. The unpleasant consequence of behaviour, which insures that behaviour less likely to occur, can be viewed as punishing. Parents use physical punishment to rectify children's inappropriate behaviours. Besides physical punishment a sense of anxiety, negative emotional feeling, sense of failure, all are punishing in nature. Thus provision of punishment decreases the occurrence of maladaptive behaviour. Some common methods of punishment used for modifying undesirable behaviours, include time out, response cost and over correction. If method of negative reinforcement is properly used, it may prevent the occurrence of problem behaviour in children.

Cognitive Learning

Perception, thinking and knowledge play a crucial role in complex from of learning. Gestalt School of Psychology emphasized the role of cognitive factor in learning. These theorists find S-R explanation of learning is insufficient. They propose that organism forms certain cognitive image/structure in memory, which organizes information and thus learning occurs. As a result of experience new associations and new relationship are established and perceived. How organism perceives the event, that is important, not the physical characteristics of the situation or object. In cognitive learning stimulus-stimulus associations are learned.

1. *Insight Learning:* Kohler studied the process of learning with special reference to the perception. He discussed the role of insight in learning. Accordingly to Gestalt psychologists, a person can deduct the solution by insight if he perceives the situation as a whole. Insight is an important element in the solution of problems and is found in higher species of animals and human beings. Kohler conducted a large number of experiments on apes and chimpanzees.

He examined the learning process of chimpanzees. He found that animals like monkeys and chimpanzees sometimes are capable of find solution to a problem all of a sudden in contrast to the slow and gradual process of trial and error. This sudden solution to a problem is called insight learning. In this type of learning perceiving the relationships is essential to solution to a problem. In insight learning the organism reacts to the whole situation and not to some details only. The capacity for insightful learning is restricted by age and individual differences. Older children have better insight than younger one. Insight depends upon the past experience. However, Gestalt theory emphasizes the importance of present experiences of the learner. The insight gained in particular circumstances is of assistance in other circumstances.

2. *Sign Learning:* Tolman has advocated this theory. Tolman advocates that during a course of behaviour, organism learns a cognitive map, which guides his behaviours. Tolman argues that reinforcement is not necessary for learning to occur. Sign learning theory states that organism follows a number of signs to the goal. Organism does not learn movements in maze apparatus; rather it learns certain features of the environment.

3. *Latent Learning:* It refers to any learning which is not observed by the behaviour at the time of learning. In this, learning takes place in the presence or neutral stimulus, without any reinforcement for particular, responses. For example, when people do not make conscious effort to learn, but later they can perform that particular task or response in a better way. This supports the latent learning phenomena. People did not try to learn but latently they continued to learn and utilize his learning at later occasion.

4. *Social Learning:* Albert Bandura (1986) proposed a social learning approach to understanding personality. This approach emphasizes the role of human interactions in social setting in learning. People learn various behaviours through observation. Social learning view suggests that people learn vicariously through initiation of other people, in addition to learning from our own experience. Social learning puts emphasis on complex interaction of individual factors, behaviours, and environmental factors. These factors can influence or change others, Bandura focuses on observational learning in which one person observes the behaviour of others and learns accordingly. By watching the deeds of others and the consequences, one learns skills, attitudes and beliefs, which

he finds reinforcing. Children learn a number of positive, or negative behaviours through observing others. Basic processes in social learning include attending to the model, remembering the model's behaviour, producing the model's behaviour and receiving reinforcement. Social learning theory has various practical applicabilities i.e., in behaviour therapy teaching interview skills to retarded person and programme for alcohol abuse.

Factors Affecting Learning

The process of learning as a whole is influenced by many factors such as motivation, competition, practice and so on.

Role of Motivation in Learning: The concepts of learning and motivation cannot be disassociated. Motives are forces, which drive the organism into action, and the simplest are the psychological motives such as thirst, hunger and pain. In human-learning however, much more complex motives are usually involved than motives which are derived from simpler ones. Desire for prestige, memory and approval is called derived motives built upon earlier simpler ones. They have been associated with the biological needs and now operate in the same way, as the original needs.

Competition: In human learning competition is a powerful motive, especially when success achieved is rewarding.

The Effect of Practice on Learning: In learning anything, several repetitions are required. It is impossible to master a complex or elaborate task in a single trial, no matter what the degree of motivation or what the value of reward. Improvement with repetition or practice is measured with respect to speed, accuracy and reduction of effort with which the task is performed.

Specific Factors Affecting Learning: It has been observed that the speed and efficiency with which learning takes place are effected by the following factors:

   (a) Learner,
   (b) The Material Learned, and
   (c) The Methods of Learning.
   (a) *Learning:* Individual differences between people learning the same task are commonly observed. This difference is the influence of factors such as age, intelligence and previous training.
   (b) *Kind of Material Learning:* Some kinds of material are much easier to learn than others. The important factor in this regard is the meaningfulness of the material to be learnt. For

example, if we make up pairs like table-chair, bat-ball, paper-pencil, they will be learnt much more rapidly than combinations of bag-cat, pencil-fire etc.

(c) *Methods of Learning:* There are different methods identified for effective learning. Some of the important methods are as follows:

Distribution of Practice: Distributed practice is a method of learning the materials over a time with intervals in between.

Whole or Part Learning: The entire material is practiced in one sitting. For example, for learning a poem, the entire poem is repeated until memorized. In part method of learning, the material to be learning is broken up into parts for separate mastery. For example, in learning a poem, each line is memorized at one time. Some of the factors affecting the relative effectiveness of the two procedures are as follows:

- *The age of the subject:* Children tend to learn faster with the part method, where as, adults with the whole method.
- *The ability of the learner:* Brighter children tend to learn better with the whole method and less intelligent children with the part method.
- *The stage of practice:* At first, better results are obtained with the part method, but later on after practice the whole method usually proves to be more effective.
- *The length or material:* If the material to be learnt is of moderate size the whole method is effective, but if it is lengthy the part method would be effective.

Verbalization and Recitations: Verbalization and recitation (reading) are generally combined with the activity to be learnt. Verbalization is generally used while learning motor skills and recitations during verbal materials are learnt.

Active Participation: Since learning depends upon motivational factors, active participation is basic to learning. In less intelligent children the optimal conditions for learning are essential for their participation. The teacher may have to make use the materials to be learned more attractive. Motivation enhances participation in the learning process.

Transfer of Training: A condition in which learning in one situation influences learning in another situation. It is a process of carry over of learning, that is, the learning of the task or skill influences mastery of later tasks. It may be positive in effect, as learning a behaviour facilitates the learning of something else, or it may be negative, as one habit interferes with the acquisition of a later one.

Transfer of Training

We learn several things in our life. Most of the learning is transferable from one sphere of life to another sphere of life. Most learning is transferable with little modifications. When previous training or learning influences the acquisition of subsequent learning it is called transfer of training.

Thus transfer of training means that learning acquired in one situation may be influential in another, situation. There are various types of transfer of training:

1. Positive transfer,
2. Negative transfer,
3. Bilateral transfer, and
4. Zero transfer.

Positive transfer of training

In positive transfer of training, acquisition of skill in one-situation facilities the training in subsequent session. For example knowledge of mathematics facilitates the training in computers, knowledge of English facilitates the training of other foreign languages also. Positive transfer occurs due to similarity of content, similarity of technique and similarity of principle.

Negative transfer of training

When acquisition of skill in one situation interferes the acquisition of skill in the subsequent situation, it is termed as negative transfer of training. There are several examples of negative transfer in everyday life for example, when one makes effort to play by left hand after having long practice with right hand the playing with the left hand is delayed.

Bilateral transfer of training

In this, skill is transformed from one part of the body to the opposite side of the body. For example learning by one hand facilitates learning by the other hand. Due to practice in right hand or right leg, improvement takes place in the left hand or left leg. A number of experiments have been conducted to show bilateral transfer through mirror drawing apparatus.

Zero transfer of training

It is also known as neutral transfer. When the learning of one skill neither facilitates nor inhibits learning in a similar task, it is called zero transfer or no transfer.

Types of Learning

A complex activity such as learning occurs in more ways than one. Different types of learning have been experimented by psychologists to identify its efficacy. Following are the important types of learning:

Verbal Learning: Occurs when the material to be learned involves language use, for example, a list of words, a poem or a lesson. To measure the amount of learning taken place, the most common task is recall, where the child merely learns to reproduce the list in the correct sequence.

Serial Learning: It is the process of learning of items in a prescribed order. When learning is done through a co-coordinated series of responses, it is achieved with perfection. For example, learning a skill such driving a car, riding a bicycle and playing a piano are all skills, which characteristically involve coordinated series of responses. The name 'serial learning' is applied to the process of learning such a sequence of response.

Rote Learning: If a task is mastered through memorization, without understanding is called as rote learning.

Meaningful Learning: Learning is described as meaningful when it involves the understanding of relationship or the acquisition of knowledge in terms of previously acquired knowledge.

Paired–associate Learning: It involves learning of pairs of items. In fact, the whole developmental process of giving meaning to our environment seems to involve paired associated learning, for example, recalling a certain date because it has personal significance.

Unit Summary

- Learning refers to a relatively permanent change in behaviour potentially that occurs as a result of reinforced practice.
- Theories of Learning: (a) Association Theories – classical conditioning, operant conditioning, reward training, avoidance training and punishment training. (b) Cognitive learning theories, and (c) Observational learning theories.
- Factors Affecting Learning: (a) Motivational factors. (b) Competition, and (c) Effect of practice.
- Specific Factors Affecting Learning: (a) Learner, (b) Kinds of materials learned, (c) Methods of learning like, distribution of practice, whole or part learning, verbalization and recitation, active participation and transfer of learning.
- Types of Learning: (a) Verbal learning, (b) Serial learning,

(c) Rote learning, (d) Meaningful learning, and (e) Paired association learning.

Check Your Progress

- Define learning.
- Explain the process of learning.
- Cognitive theories emphasize the importance of _____ and _____ in learning.
- The basis of operant conditioning are _____ and _____.

Match the following:

Pavlov	Instrumental conditioning
Thorndike	Classical conditioning
Skinner	Sign learning
Kohler	Operant conditioning
Tolman	Insight learning

- What is stimulus generalization?
- Explain operant conditioning.
- Discuss the schedule of reinforcement.
- Write short notes on:
  Insight learning, social learning, rote learning, transfer of training.
- Explain the factors affecting learning.
- What are important methods of learning?

Activities/ Assignments

Write a definition on learning in your own words

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....
....

Explain various aspects of definition given by you.

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Points for Discussion

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Points for Clarification

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PSYCHOLOGICAL ASPECTS

Unit–6

DEVELOPMENT OF SOCIAL BEHAVIOUR

STRUCTURE

- Introduction
- Objectives
- Processes in Socialization
- Beginning of Social Behaviour
- Social Development in early Childhood
- Behavior Patterns in Social Situations During Early Childhood
- Unsocial Behaviour Patterns
- Social Development in Late Childhood
- Social Development at Puberty
    - ❖ Beginning of antisocial behaviour
    - ❖ Characteristics of the attitude and behaviour at puberty
- Unit Summary
- Check Your Progress
- Activities/Assignments
- Points for Discussion
- Points for Clarification

6

Development of Social Behaviour

Introduction

Social development means acquisition of the ability to behave in accordance with social expectations. Appropriate social behaviour is an important prerequisite for vocational training and employment of persons with mental retardation. This unit deals with development of social behaviuor.

Objectives

After learning this unit, you will be able to:
- Describe the process in socialization
- Analyze the beginning of social behaviour
- Explain social development in early childhood
- Analyze social behavioural patterns during early childhood
- Analyze unsocial behavioural patterns
- Describe social development in late childhood
- Understand patterns of behaviour learned from gang membership
- Study social development at puberty

Processes in Socialization

Learning to Behave in Socially Approved Ways

Every social group has its standards of what is approved behaviour for its members. To become socialized, children must know what this approved behaviour is. They must also model their own behaviour along the approved lines.

Playing Approved Social Roles

Every social group has its own patterns of customary behaviour that are carefully defined and are expected by members of the group.

There are approved roles, for example, for parents and children and for teachers and pupils.

Development of Social Attitudes

To become socialized, children must like people and social activities. If they do, they will make good social adjustments and they will be accepted as members of the social group with which they are identified.

Beginning of Social Behaviour

At birth, babies are nongregarious. So long as their bodily needs are taken care of, they have no interest in people. During the first two months of life, they merely respond to stimuli in their environment, regardless of whether these stimuli come from people or objects. They do not distinguish clearly between human voices and other noises.

Socialization in the form of gregarious behaviour begins around the third month, when babies can distinguish between people and objects in their environment and when they respond differently to them. By that time, their eye muscles are strong enough and sufficiently coordinated to enable them to look at people and objects and follow their movements, and to see them clearly. Their hearing is also sufficiently developed by then to enable them to distinguish sounds. As a result of this development, the babies start learning to be social.

Reactions to Adults

At the age of 3 months, babies respond to human voices by turning their heads. During the third month, babies cry when they are left alone but they stop crying when they are talked to or diverted by a rattle or some other mechanical device. They recognize their mothers and other familiar people and show fear of strangers by crying and turning their heads. During the fourth month, they smile at a person who speaks to them, they show delight in personal attention, and they laugh when being played with. From the fifth to the sixth months, babies react differently to smiling and scolding, and they can distinguish between friendly and angry voices. During the sixth month social advances become more aggressive. Babies, for example, pull the hair of the person who is holding them, they grab the person's nose or eyeglasses, and they explore the person's facial features. By 7 to 9 months of age, babies attempt to imitate speech sounds. At 12 months, they can refrain from doing things in response to "no-no". From the age of 15 months, babies show an increasing interest in

adults and a strong desire to be with them and imitate them. At 2 years, they can cooperate with adults in a number of simple activities, such as helping with their baths or with their dressing. Thus, it is apparent that in a relatively short period of time babies change from passive members of the family group who receive much attention and give little in return, to active members who initiate social contacts. They have passed from nongregarious to gregarious and to social stages in the developmental pattern.

Reaction to Other Babies

Friendly contacts between babies begin usually between 6 and 8 months by looking, reaching out, and touching another baby. Between 9 and 13 months, babies explore other babies by pulling their hair or clothes, imitate the behaviour and vocalizations of other babies and show for the first time cooperative use of toys. When another baby takes a toy away, it is usual for babies to become angry, fight and cry.

Social reactions toward babies and children develop rapidly during the second year. During the last half of the second year, babies regard play materials as a means of establishing social relationships. They cooperate with their playmates, modify their behaviour to adjust to the playmate's activity, and engage in games with young or older children.

Foundations of social behaviour laid in babyhood

1. *Imitation:* Babies become a part of the social group by imitating others. They first imitate facial expression, then gestures and movements, then speech sounds, and finally, total patterns of behaviour.

2. *Shyness:* By the third or fourth months, babies can distinguish between familiar people and strangers. Until late in the first year, they react to strangers by crying, hiding their hands, and clinging to the person who is holding them.

3. *Attachment behaviour:* When babies are able to establish warm, loving relationships with their mothers or mother substitutes, the pleasure they derive from this association motivates them to try to establish friendly relations with other people.

4. *Dependency:* More the babies are cared for by one reason, the more dependent they become on that person. They show their dependency by clinging to the person crying when left with someone else, and expecting to be waited on even when they are capable of doing things for themselves.

5. *Acceptance of Authority:* It depends on the attitudes of the people in authority.

6. *Rivalry:* Rivalry develops in associations with other babies or children. It is shown by attempts to snatch toys or other objects from them not because the babies want them but because it gives them pleasure or assert their superiority.

7. *Attention Seeking:* During the second year, babies try to get the attention of adults by vocalizations by grabbing at their clothes, by hitting them, and by doing forbidden things. If they are successful, they show their satisfaction by smiling or laughing.

8. *Social Cooperation:* Babies' cooperative play with adults is usually successful because adults are willing to do most of the sharing. With peers, social cooperation is usually unsuccessful because their peers are unwilling to share.

9. *Resistant Behaviour:* Babies start to resists as they reach the age of 2 years by crying and showing refusal to obey. Unless babies are given opportunities to be independent, resistant behaviour usually leads to negativism.

Social Development in Early Childhood

From 2 to 6 years, children learn how to make social contacts and how to get along with people outside the home, especially children of their own age. They learn to adapt themselves to others and how to cooperate in play activities. Early childhood is often called the "pregang age". At this time, the number of contacts children has with other children increases and this determines, in part, how their social development will progress. Children who attend preschools– nursery schools, day care centers, of kindergartens –usually have a large number of social contacts with peers and make better social adjustments than children who have not had this preschool experience. The reason is that they are better prepared for active group participation than children whose social activities have been limited mainly to family members or children in the immediate neighborhood.

Relations with Adults

With each succeeding year, young children spend less time with adults and derive less enjoyment from being with them. At the same time, their interest in playmates of their own age increases and the enjoyment from being with them gets stronger with their growing desire to be independent. Children become resistant to adult authority.

In spite of their desire for independence, young children still try to gain attention and approval from adults. If they have derived satisfaction from attachment behaviour in babyhood, they continue to try to establish warm, friendly relationships with other adults especially family members.

Relations with Other Children

Before the age of 3 years, young children engage in solitary or parallel play. Even though two or three children play in the same room and with similar toys, little social interaction takes place. Their contacts consist primarily of imitating or watching one another or of attempting to take one another's toys.

From the age of 3 or 4 children begin to play together in groups, to talk to one another while they play. The most common behaviour of these groups consists of watching each other, holding conversations, and making verbal suggestions.

Behavior Patterns in Social Situations during Early Childhood

Cooperation: Few children learn to play or work cooperatively with others until they are 4 years old. The more opportunities they have to do things together, the more quickly they will learn to do them in a cooperative way.

Rivalry: When rivalry acts as a spur to children to do their best, it adds to their socialization. If, however, it is expressed in quarreling and boasting, it leads to poor socialization.

Generosity: Generosity, as shown in a willingness to share with others, increases as selfishness decreases and as children learn the generosity leads to social acceptance.

Desire for Social Approval: When the desire for approval is strong, it motivates children to conform to social expectations. Desire for adult approval usually comes earlier than the desire for peer approval.

Sympathy: Young children are incapable of sympathetic behaviour until they have been in situations similar to those of a person in distress. They express their sympathy by trying to help or comfort a person in distress.

Empathy: Empathy is the ability to put oneself in the position of another and to experience what that person experiences. This develops only when children can understand the facial expression and conversation of others.

Dependency: Dependency on others for help, attention, and attention motivates children to behave in a socially approved way. Children who are independent lack this motivation.

Friendliness: Young children show their friendliness by wanting to do things for and with others and by expressing their affection for them.

Unselfishness: Children who have opportunities and encouragement to share what they have and who are not constantly in the limelight of family attention learn to think of others and to do things for them rather than concentrating on their own interests and possessions.

Imitation: By imitating a person who is well accepted by the social group, children develop traits that add to their acceptance by the group.

Attachment Behavior : From foundations laid in babyhood, when the baby developed a warm and loving attachment to the mother or mother substitute, young children transfer this pattern of behaviour to other people and learn to establish friendships with them.

Unsocial Behavior Patterns

Negativism: Negativism is resistance to pressures from others to behave in a certain way. It usually begins during the second year of life and reaches at peak between 3 and 6 years. Physical expressions, similar to temper tantrums, gradually give way to verbal refusals to do what children have been asked or told to do.

Aggression: Aggression is an actual or threatened act of hostility, usually unprovoked by another person. Children may express their aggressiveness in physical or verbal attacks on another usually a child smaller than they are.

Quarreling: Quarrels are angry disputes that generally start when a person makes an unprovoked attack on another. Quarreling differs from aggression. First, because it involves two or more people while aggression is an individual act and, second, because one of the people involved in a quarrel plays a defensive role while, in aggression, the role is always aggressive.

Teasing and Bullying: Teasing is a verbal attack on another, but in bullying, the attack is physical. In both cases, the attacker gains satisfaction from watching the victim's discomfort and attempts to retaliate.

Ascendant Behaviour: Ascendant behaviour is the tendency to dominate others or to be "bossy". If properly directed, it can be a leadership trait, but it usually is not and, as a result, leads to rejection by the social group.

Egocentrism: Almost all young children are egocentric. Whether this tendency will wane, remain constant, or grow stronger will depend partly on whether children realize that it makes them unpopular and partly on how anxious they are to be popular.

Prejudice: The foundations of prejudice are laid in early childhood when children realize that some people are different in appearance and behaviour from them and that the social group regards these differences as signs of inferiority. It is unusual for young children to express prejudice by discriminating against those they recognize as different.

Sex Antagonism: In early childhood, children learn that the social group considers male superior to females. However, at this age, boys do not discriminate against girls, but they avoid them and shun activities regarded as girls' activities.

Social Development in Late Childhood

After children enter school and come into contact with more children than during the preschool years, interest in family activities begins to wane. At the same time, individual play gives way to group games. Upon beginning school, children enter the "gang age" – an age when social consciousness develops rapidly. Becoming socialized is one of the major developmental tasks of this period. During the transition from the pre gang age of early childhood to the gang age of late childhood, children shift from one group to another or from group to individual activities.

Childhood Gangs: The childhood gang is a spontaneous local group having no authorization from outside and no socially approved aim.

Gang Makeup: Gangs have a more definite structure than the informal groupings of younger children. Gang members are selected because they are able to do things, which others enjoy doing, not because they live near each other or can do what one or two members want to do at the moment. The gang exists independently of activities and then selects the various activities, it will engage in.

The typical gang is a play group, made up of children who have common play interests; its primary purpose is to have a good time, though, occasionally, having a good time may lead to mischief-making.

Characteristics of Children's Gangs

1. Gangs identify themselves by names, many of which are taken from the street or neighborhood where the members live or from popular books, comics, or movies.

2. Gang members use secret signals passwords, communication codes, or a private language to maintain their secrecy.
3. Childhood gangs often use insignia–caps, armbands, or other decorations – to identify their members.
4. Gang activities include all kinds of group play and entertainment, making things, annoying other people, exploring, and engaging in forbidden activities, such as gambling, smoking, drinking, and experimenting with drugs.

How gangs socialize children

- The gang helps to learn to get along with age mates and to behave in a way that is socially acceptable to them.
- The gang can help children to develop a rational conscience and a scale of values to supplement or replace the values of parents, which children tend to accept as an "authoritarian conscience".
- Through gang experiences, children learn appropriate social attitudes, such as how to like people and how to enjoy social life and group activities.
- The gang can help children's personal independence by giving them emotional satisfaction from friendships with peers.

Patterns of Behaviour Learned from Gang Membership

Gang life contributes to the development of a number of different kinds of social behavior.

Susceptibility to social approval and disapproval: As soon as children begin to crave the companionship of other children, they also crave their approval of their dress, their speech, and their behavior.

> *The craving for attention and approval stems from feelings of insecurity and inadequacy. It is associated with such traits as timidity, jealousy, moodiness, and over dependency.*

Over-sensitiveness: A common outgrowth of susceptibility to social approval and disapproval is over sensitiveness – the tendency to be easily hurt and to interpret what others say and do as hostile. To some extent, over sensitiveness is a measure of children's desire for social acceptance – a desire that makes them highly sensitive to the attitudes of adults as well as members of the peer group.

Suggestibility and contra-suggestibility: Others easily

influence a person who is suggestible. Like over-sensitiveness, suggestibility is an outgrowth of a craving for attention and social approval. Suggestible children believe that their willingness to follow others in what they think and do will guarantee acceptance by them.

Competition: During the gang age in late childhood, competition takes three forms:

(a) Rivalry among group members for recognition within the group itself.

(b) Conflicts between the gang and rival gangs.

(c) Conflicts between the gang and organized agencies of society.

Each of these has a different effect on the socialization of children. The first is likely to lead to hostility and quarreling within the gang, thus serving to weaken the group and the loyalty of each member. The second serves to build up solidarity and feelings of loyalty, which the third, if it can be kept within constructive bounds, serves to develop independence.

Good Sportsmanship: Good sportsmanship is the ability to cooperate with others to the extent of submerging individual personalities and promoting the spirit of the group. While it can be learned at home, it is far more likely to be a product of group life. From being members of a gang, children soon learn that they must play according to the rules of the game. Any infringement upon these, such as cheating, lying, or using undesirable methods, will not be tolerated.

Responsibility: Sportsmanship is closely related to responsibility – the willingness to assume one's share of the load. The development of responsibility has its roots in the child's early training. The children from large families, through necessity develop responsibility for their own affairs and for the care of younger siblings. Children who learn to assume responsibilities at home not only make better adjustments to the peer group but they also are likely to be selected for leadership roles. This gives them further opportunities to learn to assume responsibilities and the confidence that they can assume them successfully.

Social Insight: Social insight is the ability to perceive and to understand the meaning of social situations and of people in those situations. It is dependent upon empathy – the ability to put oneself in the psychological shoes of another and to perceive a situation from the other person's perspective.

Social insight normally increases with age, owing partly to mental maturation and party to learning from social experiences.

Only in late childhood, however, it is sufficiently developed for children to be able to understand the behaviour and feelings of other children to any great extent. Children whose social perception is superior to that of their peers usually make better social adjustments and receive greater social acceptance. This contributes to the popularity of bright children. And, the more popular children are the more opportunities they have to develop social insight.

Social Discrimination: Social discrimination means the tendency to make a distinction among people by certain tokens or cues. This distinction is usually accompanied by a tendency to treat them differently from others.This treatment may range from mere recognition of the difference to unfair or even cruel treatment.

Social discrimination appears early in childhood but is not well developed until the children become a member of a gang. Gang member assumes the attitude that any member of their group is all right but that anyone who is not a member is inferior. This is a form of snobbishness, based on whether or not one belongs to the group. It soon becomes generalized to include anyone who is different because of religion, race, socio-economic status, age, or sex.

Sex Antagonism: Sex antagonism means an active hostile opposition toward members of the opposite sex. It is popularly referred to as the 'battle between the sexes'.

In the early years of childhood, boys play with girls as much as they do during babyhood. Social harmony between the two is common. Most children during kindergarten and first grade begin to prefer persons – both children and adults of their own sex. There is a reverse in this tendency as they puberty.

Social Development at Puberty

With the beginning of puberty, a change comes in social attitudes, a decline in interest in-group activities, and a tendency to prefer solitude. As puberty progresses, the rate of puberty-changes speeds up, social attitudes and behavior become increasingly antisocial. Because of the antisocial behavior of this stage, puberty is sometimes called the "negative phase" and a period of disequilibrium.

At this time, the pattern of social development is interrupted. Children are not, however, on a plateau in the continuum of social learning; instead they are skidding downward, often abruptly, from the point where they seemed close to the adult level. For most children, this interruption in the socialization processes only an interlude, unpleasant while it lasts but leaving few if any permanent scars.

Since the antisocial behavior of prepubescent or pubescent children is not the result of ignorance of social expectations, it cannot be called "unsocial". Typically, children know what society expects or them.

Beginnings of Antisocial Behaviour

It is impossible to predict exactly when antisocial behavior and attitudes will begin because there are such marked individual differences in the age of sexual maturing. On the average, however, puberty starts about a year earlier in girls than in boys. The average age of the beginning of puberty changes in girls is 11 years, and in boys, 12 years. The first signs of antisocial behavior, therefore, can be expected approximately at these ages.

The worst aspects of antisocial behavior occur in the 6- to 12-month period preceding sexual maturity. This means, for girls, at some time between the twelfth and thirteenth birthday, and for boys, between the thirteenth and fourteenth birthdays. After the peak has been reached, there is normally a rapid decline in antisocial behavior.

Characteristics of the attitudes and behaviour at puberty

1. Pubescent children sometimes have an antagonistic attitude towards everyone.
2. Pubescent are even more aggressive than preschoolers, instigating fights with peers and criticizing, arguing, and finding fault with almost everything adults do.
3. Pubescent children quarrel over the most trivial matters and pick up fights with the members for their gang, criticizing whatever they do and delighting in hurting their feelings. As a result, many longstanding friendships are broken.
4. According to pubescent children, social activities "bore" them, especially family gatherings and holiday celebrations.
5. Pubescent children spend much of their time in isolation engaging in daydreams. In which they play the role of martyrs or thinking about sex, exploring the genital organs, and masturbating.
6. Pubescent children intentionally refuse to communicate with others except when necessary.

Unit Summary

- Whether children develop into social, nonsocial, or antisocial people depends mainly on learning, not on heredity as tradition claims.
- The three processes of socialization consist of learning to

behave in a socially approved way, playing approved sex roles, and developing social attitudes.

- The social group influences children's social development by encouraging them to conform to social expectations, by helping them to achieve independence, and by influencing their self-concepts.

- What the social group expects in social behavior varies somewhat from one group to another, but all groups expect children to master the developmental tasks appropriate for their age levels.

- Early social experiences, both at home and outside the home, are important in determining whether children want to be social, unsocial, or antisocial.

- It is important to know that the pattern of social development is similar for all children because it makes it possible to predict what behavior to expect at different ages and it provides a schedule for training social skills and attitudes.

- Social development begins early in childhood with the appearance of social smiling. The first social responses of babies are to adults and later, to other babies and children. The patterns of social behavior laid at this time from the foundations for later social development.

- Early childhood is known as the "pregang age" because, at this time, children are learning to adjust to peers and to develop patterns of behaviour that conform to social expectations.

- There are a number of patterns of behavior in social situations during early childhood, which, according to adult standards, are unsocial. However, they are valuable learning experiences because they show children what members of the social group will tolerate and what will lead to social approval and disapproval.

- Social development during the gang age of late childhood helps children who are gang members to learn socially approved patterns of behavior, and this is an asset to the development of favorable self-concepts. Children who are not gang members are deprived of this socializing influence and are likely to develop unfavourable self-concepts.

- Many of the patterns of behavior developed during the pregang period serve as foundations for the patterns developed during the gang age. However, some of them, both social-such as good sportsmanship, responsibility, and

- cooperation–and unsocial–such as prejudice, discrimination, and sex antagonism–are intensified as a result of peer pressures.
- Unsocial and antisocial behaviour patterns develop during puberty. Most of these tend to be temporary and are replaced by more socially approved patterns after the radical physical changes of puberty are completed.

Check Your Progress

- Explain the process in socialization.
- Briefly explain the beginning of social behaviour during babyhood.
- Discuss the social development in early childhood.
- What are the unsocial behavioural patterns in childhood.
- How do gangs socialize children.
- What do you mean by social insight.
- Discuss the social development at puberty stage.

Activities/ Assignments

- Based on this unit, prepare an essay on social development in the persons with mental retardation.

Points for Discussion

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Points for Clarification

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PSYCHOLOGICAL ASPECTS

Unit–7

SEXUALITY

STRUCTURE

- Introduction

- Objectives

- Sex Education in School Curriculum

- Reproductive Physiology

- Sexual Deviation

- Sexual Behaviour of Persons with Mental Retardation

- Sexuality and Various Stages of Life

- The Need of Sex Education

- Sexuality and Marriage of Persons with Mental Retardation

- Ethical Aspects

- Unit Summary

- Check Your Progress

- Activities/Assignments

- Points for Discussion

- Points for Clarification

7

Sexuality

Introduction

There are misconceptions regarding the sexuality of persons with mental retardation. As vocational instructors are expected to deal with the adolescents and adults with mental retardation, they should have proper knowledge on sexuality. It would help to identify the sexual needs and provide necessary sex education to the persons with mental retardation. Therefore, this unit gives the basic information on human sexuality.

Objectives

After learning this unit, you will be able to:
- Determine the goals of sex education in school curriculum
- Understand the reproductive physiology
- Analyze sexual deviations
- Discuss sexual behaviour of persons with mental retardation
- Understand the need of sex education for persons with mental retardation
- Analyze the coping abilities of different categories of persons with mental retardation
- Examine the ethical aspects related to sexuality and marriage of persons with mental retardation

Sex Education in School Curriculum

The goals of sex education in school curriculum:
- Providing adequate information on physical, mental, and emotional maturation processes related to sexuality
- Developing appropriate attitudes toward sexuality in all of its various manifestations – in the individual and in others.
- Providing insight concerning relationships to members of

both sexes and to help in understanding obligations ⬤
responsibilities to others.
- Developing moral values that are essential to provide rational bases for making decisions.
- Enabling each individual to use sexuality effectively and creatively in his/her several roles as spouse, parent, community member, and citizen.

Reproductive Physiology

Male

The external genitalia of the normal, adult male include the penis, scrotum, testes, epididymis, and parts of the vas deferens. The internal parts of the genital system include the vas deferens, seminal vesicles, ejaculatory ducts, and prostate.

Female

The internal female genital system comprises the ovaries, fallopian tubes, uterus, and vagina. The external genitalia or vulva includes the mons pubis, major and minor lips, clitoris, glans, vestibule of the vagina, and vaginal orifice.

The female gonads are the two ovaries, which lie on either side of the uterus. They are spherical glands, about 1 inch in length, and are supported by a fold of peritoneum called the suspensory ligament. A newborn female has about 200,000 immature ova in each ovary. These ova decrease in number with age and disappear after menopause. Throughout her reproductive life, from puberty to menopause, a woman usually releases a total of 400 ova into the peritoneal cavity. Release of ova usually occurs once every lunar month. The ovaries also produce two hormones important to female sexual development, estrogen and progesterone.

Physiology

Neurological and hormonal factors are enmeshed in the development of human sexuality. Gonadal sex is chromosomally determined at the time of fertilization, and chromatic bodies (or lack of them) appear as indications of genetic sex in nonsexual body cells as well. These chromatin bodies are present only in the female.
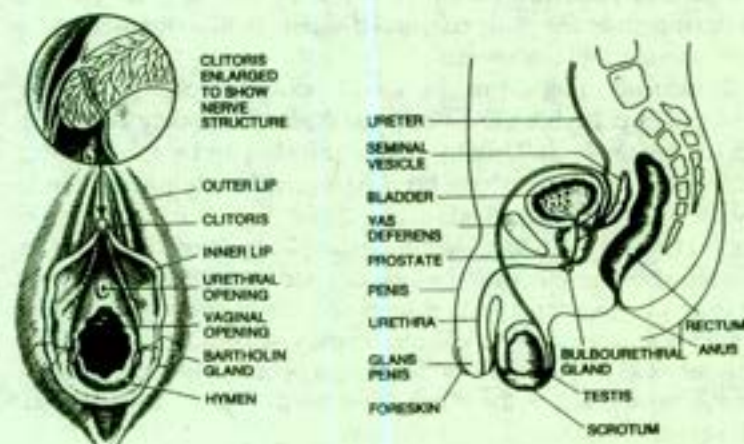
Unlike the gonads, which are under chromosomal influence, the fatal external genitalia are very susceptible to hormones, and exogenous hormonal administration could cause external genital development inconsistent with the fatal sex gland development. A female fetus, possessing an ovary, could develop external genitalia

mbling that of a male if the pregnant mother received sufficient exogenous androgen.

In normal development, spermatogenesis and oogenesis begin embryonically and are continued and completed when the male and female reach puberty.

Female External Genitalia   *Male Reproductive System (Side View)*

CLITORIS ENLARGED TO SHOW NERVE STRUCTURE

OUTER LIP
CLITORIS
INNER LIP
URETHRAL OPENING
VAGINAL OPENING
BARTHOLIN GLAND
HYMEN

URETER
SEMINAL VESICLE
BLADDER
VAS DEFERENS
PROSTATE
PENIS
URETHRA
GLANS PENIS
FORESKIN
RECTUM
ANUS
BULBOURETHRAL GLAND
TESTIS
SCROTUM

Sexual Deviation

Paraphilias: In DSM IV, paraphilia is defined as unusual fantasies or sexual urges or behaviours that are recovering and sexually arousing. These activities generally focus on a person's humiliating himself or herself or a partner, on children or other nonconsenting people, or on nonhuman objects.

The DSM IV recognizes the following major categories of paraphilias: Exhibitionism, Fetishism, Frotteurism, Pedophilia, Sexual masochism, Sexual Sadism, Voyeurism, Transvestic fetishism. A separate category for other paraphilias not otherwise specified for example zoophilia.

Telephone and computer scatologia.

Necrophilia.

Partialism.

Coprophilia and Klismaphilia.
Urophilia.
Masturbation.
Hysozyphilia.

Exhibitionism: Exhibitionism is the recurrent urge to expose the genitalia to a stranger or to an unsuspecting person. In almost 100% of cases, those with exhibitionism are men exposing themselves to women. The dynamic of men with exhibitionism is to assert their masculinity by showing their penises and by watching the victims' reactions such as fear, surprise, and disgust. In this situation, men unconsciously feel castrated and impotent.

Fetishism: In fetishism, the sexual focus is on objects (such as shoes, gloves, pantyhose, and stockings) that are intimately associated with the human body. Usually, the disorder begins by adolescence, although the fetism may have been established in childhood. Once established, the disorder tends to be chronic. Sexual activity may be directed toward the fetish itself (for example, masturbation with or into a shoe), or the fetish may be incorporated into sexual intercourse (for example, the demand that high-heeled shoes be worn). The disorder is almost exclusively formed in men. According to Freud, the fetish series as a symbol of the phallus to people with unconscious castration fear. Learning theorists believe that the object was associated with sexual stimulation at an early age.

Frotteurism: It is usually characterised by a man's rubbing his penis against the buttocks or other body part of a fully clothed woman to achieve sexual pleasure (or orgasm). At other times, he may use his hands to rub an unsuspecting victim. The acts usually occur in crowded places, particularly in subways and buses. Those with Frotteurism are extremely passive and isolated, and Frotteurism is often their only source of sexual gratification. The expression of aggression in this particular paraphilia is readily apparent.

Pedophilia: It involves recurrent intense sexual desire toward or aroused by children of 13 years of age or younger. People with pedophilias are at least 16 yrs of age and at least 5 years older than the victims. Most child molestations involve genital fondling or oral sex. Vaginal or oral penetration of children occurs infrequently except in cases of incest.

Incest is related to pedophilia by a frequent selection of an immature child as a sex object, the subtle or overt element of coercion, and occasionally the preferential nature of the adult-child liaison.

Sexual Masochism: People with sexual masochism have a

urrent preoccupation with sexual urges and fantasies involving the act of being humiliated, beaten, bound, or otherwise made to suffer. Sexual masochism practices are more common among men than among women. Freud believed that masochism resulted from destructive fantasies turned against self people with sexual masochism may have had childhood experiences that convinced them that pain is a prerequisite for sexual pleasure.

Sexual Sadism: It means the achievement of sexual stimulation and gratification by inflicting (physical or psychic pain or humiliation) on a sexual partner. The onset of this disorder is usually before the age of 18 yrs; most people with sexual sadism are men. According to psychoanalytic theory, sadism is a defense against fears of castration. Sexual sadism is related to rape, although rape is more aptly considered an expression of power. Some sadistic rapist, however, kill their victims after having sex (so-called lust murder).

Voyeurism: It is also known as scopophilia. It is recurrent preoccupation with fantasies and acts that involve observing people who are naked or engaged in grooming or sexual activity. Masturbation to orgasm usually accompanies or follows the event. The first voyeuristic act usually occurs during childhood and is most common in men.

Transvestic Fetishism: It is described as fantasies and sexual urges to dress in opposite sex/gender clothing as a means of arousal and as an adjunct to masturbation or coitus. It typically begins in childhood or early adolescence. As years pass, some men with Transvestic fetishism want to dress and live permanently as women more rarely, women want to dress like men. These people are classified in DSM IV as these with Transvestic fetishism and gender dysphoria.

Paraphilia Not Otherwise Specified

Telephone and computer scatologia: Telephone scatologia is characterized by obscene phone calling and involves an unsuspecting partner. People also are interactive computer network, sometimes compulsively, to send obscene messages by e-mail and to transmit sexually explicit messages and video images.

Necrophilia: It is an obsession with obtaining sexual gratification form cadavers. Most people with this disorder find corpse in morgues, but some have been known to rob graves, even to murder to satisfy their sexual urges.

Partialism: People with the disorder of partialism concentrate

their sexual activity on the part of the body to the exclusion of others. Mouth genital contact such as cunnilingus (oral contact with a woman's external genitals), fellatio (oral contact with the penis), and anilingus (oral contact with the anus) – is normally associated with foreplay; Freud recognized the mucosal surfaces of the body as erotogenic and capable of producing pleasurable sensation. But when a person uses these activities as the sole source of sexual gratification and does not refuse to have coitus, a paraphilias exists. It is also known as ORALISM.

Zoophilia: In zoophiles, animals, which may be trained to participate, are preferentially incorporated into arousal fantasies or sexual activities, including intercourse, masturbation and oral genital contact.

Coprophilia and Klismaphilia: Coprophilia is attraction to sexual pleasure associated with the desire to defecate on a partner, to be defecate on, or to eat feces (coprophagia). A variant is the compulsive utterance of absence words (coprolalia). These paraphilias are associated with fixation at the anal stage of psychosexual development. Similarly, klismaphilia, the use of enemas as a part of sexual stimulation, is related to anal fixation.

Urophilia: Urophilia is interest in sexual pleasure associated with the desire to urinate on a partner or to be urinated on. In both men and women, the disorder may be associated with masturbatory technique involving the insertion of foreign objects into the urethra for sexual stimulation.

Masturbation: It can be defined as a person's achieving sexual pleasure, which usually results in orgasm, by him or her (autoeroticism). Alfred Kinsey found it to be more prevalent in males than in females, but this difference may no longer exist. The techniques of masturbation vary in both sexes and among people. The most common technique is direct stimulation of the clitoris or penis with the hand or the fingers. Indirect stimulation may also be used, such as rubbing against a pillow or squeezing the things.

Masturbation is abnormal when it is the only type of sexual activity performed in adulthood, when it is done with such frequency as to indicate a compulsion or sexual dysfunction, or when it is consistently preferred to sex with a partner.

Hypoxyphilia: It is the desire to achieve an altered state of consciousness secondary to hypoxia while experiencing orgasm.

ople may use a drug (such as a volatile nitrite or nitrous oxide) to produce hypoxia.

Sexual Behaviour of Persons with Mental Retardation

Sexuality is determined by much more than our physical gender. The sex behaviour is influenced by

- Emotions and feelings
- Instincts and intellect
- Past experiences and hopes for the future

There are many misconceptions regarding sexuality of persons with mental retardation such as:

- Do not have feeling and emotions
- Not interested in sex
- Overly interested in sex
- Not capable of being sexual

Sexuality and Various Stages of Life

Adolescence is a period of 13 years to 21 years and one that commence from the middle of puberty which extends generally to 4 years from 11 years in girls, to 12 years in boys.

Secretion of sexual hormones helps development of sex organs. Development of sex characters determines the changes in physical and psychological behaviour.

Effects on Behaviour

- Overly
- Desire for isolation
- Incoordination
- Boredom
- Restlessness
- Social antagonism
- Resistance to authority
- Heightened Emotionality
- Lack of self-confidence
- Pre-occupation with sex
- Excessive modesty

1. *Problems of adolescence in persons with mental retardation*

- Physical and emotional development may not proceed as in normal
- Emotions can be aroused with great rapidity
- May not be controlled effectively

- Mood swings
- Sex behaviour may not socially acceptable

Need

- Orientation in sex education
- Maintaining self-esteem
- Observe their behaviour in depth

2. *Problems in early adolescence*

- Considerable restlessness
- Loss of temper
- Refuse to follow instructions
- Fantasizing
- Preoccupation with sex
- Unhappiness with environment

3. *Problems in late adolescence*

- Greater periods of calmness
- As a part of growth clumsiness is seen in boys (14-22 years)
- Rapid growth in girls (12-20 years)
- Physical development may be normal in persons with mental retardation
- Delay in physical development depends on the severity of mental retardation
- Exhibits childish behaviour

How to deal

Sex education can be imparted through
- Role models
- Professional guidance
- Preparation of a guardian
- Sex education as a priority
- Explaining at understandable level – reproductive process
- Strategies to cope with tensions
- Training to deal with thoughts
- Tackling the issues on marriage

4. *Adulthood*

Chronologically 21 years for males, 18 years for females Characteristics

- Adjustment to new pattern of life and new social expectations
- Assuming the role of spouse, parent and breadwinner
- Adapting to new attitudes and interest
- A life of independence

Problem of an adult with mental retardation

An adult with mental retardation is dependent on others to carry out the roles of an adult such as:

- Being a bread winner
- Mating
- Setting up a home
- Meeting needs of family
- Meeting the needs of society

The Role of Guidance

Directional counselling is needed rather than non-directional counselling to deal with unrealistic aspirations in:

- Grooming skills
- Possessions of material aspects
- Money transaction
- Recreation
- Need for a home to belong
- Job satisfaction

The Need of Sex Education

All people including persons with mental retardation are born with feelings and emotions. But the people with mental retardation do not learn things as subtly as the nonretarded persons in the society. Therefore learning strategies must sometimes be more specific and different to meet the needs of this special population. This may help them to live their lives to their fullest capacity, regardless to their handicap.

Appropriate Educator

The most appropriate person, to talk to someone about growing up, body changes, maturation and feelings, is the person closest to the daily living scheme of the individual. The most effective sex education is not done in a classroom but rather occurs in the daily interactions.

Professionals should lend support systems to the direct caregivers and parents so that they will be more comfortable with their interactions. If the classroom is used, generalization techniques are taught so that the knowledge obtained can be useful to the individual in various environments.

Orientation for Sex Education

Emphasis is to be placed on the need to start with very basic things and move to the more complicated aspects. The programme should

keep in mind the cognitive, adaptive and communicative limitat● of the persons with mental retardation.

It is only when person become comfortable with their own sexuality, they can be most effective in helping the persons with mental retardation or any one else.

Important Consideration

1. Sex education involves relationships: How we feel about ourselves in relationship to family, friends, lovers, spouses etc., and how we act according to these feelings.
2. Sex education means the learning of physiology of the human body, the respective male and female role in human reproduction and the activity involved.
3. Sex education consists of the understanding of sexual impulses or body feelings (erotic) and how they are aroused and controlled.
4. Differentiate feelings from information.

Sex education for individuals with mental retardation takes a great deal of creativity and flexibility. The educator must recognize the need for extreme concreteness of language when working with this category of people. Materials, developed and used, should emphasis low level language, words, and augmentative/alternative communication modes where applicable. Social behaviour and all of its interactive process from learning to greet people, developing conversational skills, sharing social experiences and so forth, need to be discussed and developed.

Policies need to be developed and supported by the administration, and communicated to the parents as well as to all caregivers and professionals working with the group of persons with mental retardation.

The Responsibility of Family and Friends

- Recognize that the person with mental retardation is a sexual being whose sexual needs and desires are natural.
- Accept that he has the potential and capability to love and be loved.
- Encourage social interactions.
- Avoid the tendency to protect over.
- Aware that friendship is precious and every person needs someone to talk with, play with, and to look forward to seeing.
- Accept sexuality as a vital aspect of every person's life.
- Give love, understanding and support to the persons with disabilities.

Sexuality and Marriage of Persons with Mental Retardation

Coping Abilities of Different Categories

The mentally retarded persons can effectively use the various senses to explore and enjoy themselves and their worlds in ways acceptable to their living environment and society according to their adaptive levels of functioning. In developing a programme to foster healthy psycho-social-sexual development, there is a need to recognize the social aspects of development on a personal, private level, as well as public, community, and familial level. Based on experiences in working with adults and the study on "Marriage of mentally retarded and non-mentally retarded persons" (Thressia Kutty, 1998), the general coping abilities of different categories of persons with mental retardation are discussed below.

Persons with Mild Mental Retardation

- Similar to average psychosocial sexual behaviour in society.
- Explores, adapts, controls sexual impulses and urges in similar ways as majority of normal population.
- Capable of developing appropriate adaptive skills with sex education.

Persons with Moderate Mental Retardation

- Secondary sexual characteristics might be delayed.
- Adaptive and psychosocial sexual behaviour is poor.
- Functions more on a primary reward.
- May respond to verbal model of sex education.
- Understands better through concrete examples and activities.

Persons with Severe Mental Retardation

- Very poor control of sexual impulses.
- Lack of development of adaptive psychosocial behaviour
- Limited ability to predict or foresee consequences of sexual behaviour
- Problem in comprehending societal rules, especially private versus public, and developing adaptive behaviour in these areas.

Sexuality and Relationship—Person with Mild Mental Retardation

On the whole, the persons with mild mental retardation have various abilities and skills in recognizing and meeting their sexual needs. Many of them are integrated the society, never having been identified as mentally retarded. They often lack the adaptive skills to cope up

with their psychosocial needs by using community resources. With this population, the area of sex education is to help integrate these individuals, as much as probable, into the main stream of society by helping them to adjust to their handicaps and limitations. They need to be taught how to use community resources to the best of their ability.

One of the major problems possible to encounter with the persons with mild retardation is that they have sexual urges and desires but have not learned the social amenities that will allow them to meet their needs without being abusive to themselves or others. They function at a very concrete language level. It is often difficult for them to acquire the knowledge of sexuality that no retarded persons learn through observation. If these skills are taught, they can develop better adaptive skills and lead more enriching sexual lives.

Persons with Moderate Mental Retardation

This group can be easily identified by the public as mentally retarded because of their low functioning of adaptive, cognitive and educational skills.

They should be taught in a more pragmatic and programmed way to handle the consequences of their sexual behaviour, especially how to behave appropriately in public so that it will not cause a trouble with community standards. Their married life with the normal partners are not sustaining because they found difficult in their interpersonal relationship with this category of persons with moderate mental retardation. They will have to live in some sort of protected or restricted environment. All efforts should be made to encourage the development of appropriate socialization, recreation and leisure time skills.

Persons with Severe Mental Retardation

Excessive self-stimulatory activities are often exhibited by both severely and profoundly retarded group. Appropriate social behaviour, sexual or not, should be taught, conditioned whenever possible, and always reinforced appropriately.

In the homes and residential facilities, very little programming exists for this population other than tender loving care. Therefore the tendency to self-stimulation increases. All efforts should be taken to provide daily activities that make the environment more interesting.

Because of the severe inability of the profoundly retarded persons to communicate verbally or non-verbally, there is a possibility that caregivers, whether in the home or residential facility, may try to exploit these individuals. The severely mentally retarded persons may not be able to communicate these experiences if they occur.

ical Aspects

In accordance with international declarations on rights of the persons with mental retardation the legislation should guarantee to the mentally retarded persons as normal a life as possible. The limited capacities of this category should be recognized while interactions between the retarded and nonretarded persons are legislated upon.

In the memorandum on "A comprehensive legislation for the mentally handicapped" prepared by Ms. Amita Dhanda, Indian Law Institute, New Delhi, she explains the philosophy of legislation, target group, institutionalization and treatment, incapacity to stand trial, defense of insanity, right of livelihood, right to contract, marriage and divorce and professional assessment.

The points which are mentioned under the heading 'Marriage and divorce' are given below:

1. There should be no express prohibition in the law with regard to a mentally retarded person's right to marry.
2. Annulment of marriage on the ground that one of the parties was mentally retarded should not be permitted.
3. When fact of retardation has been concealed annulment of marriage can be procured on the ground that consent to the marriage had been fraudulently procured.
4. Divorce on the ground that the respondent is suffering from retardation of such extent that the petitioner cannot reasonably be expected to live with him, should be permitted.
5. Retardation of a party should not operate as a disqualification for seeking divorce from his spouse on the grounds specified in the law.

If these recommendations are accepted in a separate law for the persons with mental handicap married life of persons with mental retardation will be in question. In a study of 30 marriages between mentally retarded and non-mentally retarded individuals (Thressia Kutty, A. T.) it was found that majority of the non-mentally retarded persons were not aware of the real condition of the mentally retarded partner before their marriage. In this study, no one approached the court for divorce. Some of them just left the mentally retarded partner. Many of them continue their married life because they are not able to find alternatives. Very few had agreed to marry after realizing the real condition. If this is the situation, exercising the rightly to marry is not always probable because every right is bound with serious responsibilities. Is there any alternative to guarantee the adult persons with mental retardation as normal a life as possible?

Unit Summary

- The DSM IV recognizes the following major categories of paraphilias :
  Exhibitionism, Fetishism, Frotteurism, Pedophilia, Sexual masochism, Sexual Sadism, Voyeurism, Transvestic fetishism. A separate category for other paraphilias not otherwise specified for example zoophilia.
- Sexuality is determined by much more than our physical gender. The sex behaviour is influenced by
  (a) Emotions and feelings
  (b) Instincts and intellect
  (c) Past experiences and hopes for the future
- Secretion of sexual hormones helps development of sex organs. Development of sex characters determines the changes in physical and psychological behaviour.
- Sex education can be imparted through role models, professional guidance, preparation of a guardian, sex education as a priority, explaining at understandable level–reproductive process, strategies to cope with tensions, training to deal with thoughts, and tackling the issues on marriage.
- Sex education for individuals with mental retardation takes a great deal of creativity and flexibility. The educator must recognize the need for extreme concreteness of language when working with this category of people. Materials, developed and used, should emphasis low level language, words, and augmentative/alternative communication modes where applicable.
- In accordance with international declarations on rights of the persons with mental retardation the legislation should guarantee to the mentally retarded persons as normal a life as possible.

Check Your Progress

- Explain human reproductive physiology.
- What are major categories of paraphilias.
- How can be sex education imparted to persons with mental retardation.
- Explain the need of sex education for persons with mental retardation.
- Explain coping abilities of different categories of persons with mental retardation.

● • Explain the ethical aspects with regard to sexuality and marriage of persons with mental retardation.

Activities/ Assignments

- Develop material and prepare activities to impart sex education to various categories of persons with mental retardation.

Points for Discussion

A person with mental retardation is sexually abused by a normal person/a coworker. How will you act/react to this situation.

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Points for Clarification

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PSYCHOLOGICAL ASPECTS

Unit–8

**DEVELOPMENT OF INDIVIDUAL IN THE CONTEXT
OF WORK AND EMPLOYMENT**

STRUCTURE

- Introduction
- Objectives
- Why People Work
- Occupation Information
- Important Facts Concerning Occupation
- Ability of Persons with Mental Retardation to Work
- Unit Summary
- Check Your Progress
- Activities/Assignments
- Points for Discussion
- Points for Clarification

8

Development of Individual in the Context of Work and Employment

Introduction

After learning various psychological aspect the final unit in Block 1 deals with the development of individual in the context of work and employment. The persons with mental retardation cannot be denied a job due to his disability. A remunerative job is important for any individual irrespective of his/her own limitations.

Objectives

After learning this unit, you will be able to:
- Understand why people work
- Aware the need to provide correct occupational information
- Describe the important facts concerning occupation
- Analyze the ability of persons with mental retardation to work.

Why People Work

Life, whatever it is, can be characterised as activity, and during the course of it people are continually active, even in sleep (everyone turns and moves during a normal night's sleep). Work is a form of activity that has social approval and satisfies a real need of the individual to be active. To produce, to create, to gain respect, to acquire prestige, and incidentally to earn money–these are some or the reasons that people work.

Morse, Weiss and Greggs (1954) report after a survey that work has a double function. Gainful employment enables people to get money to support their families and themselves. Work also relates to society. It gives people a feeling of 'place' or 'role'. In other words, work not only allows a person to exist but also tends to stabilize his place in society.

In our society there are few instances of forced idleness; b⬤
when they occur, they are usually unpleasant. People in jails or
hospitals and the unemployed are examples of forced idleness.

Occupational Information

One of the functions of guidance is to provide correct information
about the occupations to the clients, so that they focus the complex
reality and help them to know the opportunities and their limitations
before deciding for it. It can be possible, if they are provided with
accurate and able information about the occupations. It provides
them opportunities to gain maturity in vocational understanding
and develop attitudes in harmony with the modern and ever
changing demand of social and political life. The update knowledge
of occupations will make his service more effective, if he is properly
trained in the process of counseling and his information of the
student is through.

The information must include the details of sources of
information, jobs, various industries, training and placement
facilities. As this information goes on changing from time to time
because new institutions come up with different sets of admission
and the complexities of the occupations also multiply, so it becomes
essential for the guidance services to keep their information up to
date and disseminate it to the perspective clients.

Important Facts Concerning Occupation

Some facts which are important from the point of view of guidance
are as follows:

Importance: Importance should be given to locally available jobs.

Nature of Work: The type of the work done. The type of labour
set in i.e. intellectual or physical, number of persons employed, duties
and place of employment.

Working Conditions: Working hours, work in standing position
or sitting position, permanent or temporary job, duration of the job.

Personal Qualities: Some jobs like shop assistant needs extrovert
behaviour while others like a weaving assistant could be introvert.

Promotion: Channel of promotion and its duration and scope,
along with other benefits available after the experience in the job.

Benefits: Earning, over time work and earning, medical and
old age benefits, and vacations.

Advantages and Disadvantages: Important matters such as
chances of further improvement and insurance.

bility of Persons With Mental retardation to Work

Adults with mental retardation have the capacity to perform meaningful work. Mental retardation does not mean that such individuals are unable to learn, perform or work. In fact, with appropriate training techniques, individuals with even relatively severe mental retardation can learn and produce products, which can earn them remuneration and meaningful employment.

The ability of adults with mental retardation to work is frequently underestimated. One reason for this unfortunate phenomenon is that the few vocational settings to which the mentally retarded individuals may have entered promoted incompetence or exhibited poor work habits. These deficits seen could be the result of lack of adequate planning and vocational training.

Vocation training programmes prepare individuals with mental retardation for employment either by specifically designing a training programme for one job or jobs type or by systematically presenting a range systematically presenting a range of community work experiences from which an individual placement is later selected. Age is one of the key factors to consider. In addition, variables that need to be considered are:

- Physical ability of the individual.
- Sensory ability of the individual.
- Previous work history.
- Aptitude and interest.
- Family background.

Prerequisite skills like time management and punctuality, ability, to carry out instructions, maintaining appropriate hygiene at work, getting along with coworkers and some of the specific skills or work related behaviours that need to be mastered before an individual with mental retardation joins work.

Unit Summary

- Morse, Weiss and Greggs (1954) report after a survey that work has a double function. Gainful employment enables people to get money to support their families and themselves. Work also relates to society. It gives people a feeling of 'place' or 'role'. In other words work not only allows a person to exist but also tends to stabilize his place in society.
- Important facts concerning occupation are importance, nature of work, working conditions, personal qualities, promotion, benefits, and advantages and disadvantages.

- Prerequisite skills like time management and punctuality, ability, to carry out instructions, maintaining appropriate hygiene at work, getting along with coworkers and some of the specific skills or work related behaviours that need to be mastered before an individual with mental retardation joins work.

Check Your Progress

- What are the important facts concerning occupation?
- What are variables need to be considered for the employment of persons with mental retardation?
- Mention the prerequisite skills, a person with mental retardation need to be mastered before joining work.

Activities/ Assignments

- Prepare a list of occupations suitable to persons with mild, moderate, and severe mental retardation.

Points for Discussion

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Points for Clarification

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PSYCHOLOGICAL ASSESSMENTS

Unit–9
INTELLIGENCE TESTS

STRUCTURE

- Introduction

- Objectives

- Definition of Psychological Assessment

- Intelligence–Definitions

- Types of Intelligence

- Commonly Used Tests

- Unit Summary

- Check Your Progress

- Activities/Assignments

- Points for Discussion

- Points for Clarification

9

Intelligence Tests

Introduction

Block 2 deals with psychological assessment. It has 4 units which give brief explanation on intelligence testing, adaptive behaviour and personality tests. Vocational instructors should have a basic knowledge of psychological assessment, the tools used for the assessment of intelligence adaptive behaviour, interest, aptitude and personality are discussed.

Objectives

After learning this unit, you will be able to:
- Define psychological assessment and intelligence.
- Understand types of intelligence.
- Distinguish between commonly used tests.

Definition of Psychological Assessment

Assessment is the process of collecting information by which the assessor gains understanding of the assessee, necessary for making informed decisions. Psychological assessment is the process of systematic collection, organisation and interpretation of information about a person and his situations, and the prediction of the person's behaviour in a new situation. Psychological assessment encompasses assessment of the three major aspects of the mind namely; cognition, conation and affection. Psychological assessment involves understanding of the causes of the problem and the potential solutions for the problem. The purpose of psychological assessment is to evaluate an individual or group of persons in relation to a specific issue or problem. These may include intellectual functioning, learning disabilities, special abilities, scholastic achievement, personality functioning, emotional and social areas and questions

of normality and abnormality. The psychologist develops hypotheses based upon information of past behaviour, present behaviour and prediction for future behaviour as defined by given situations incorporated in assessment information.

The psychological assessment marked its systematic beginning by the pioneer works of Alfred Binet (1857–1911), a French psychologist and Theodore Simon (a physician and a student of Binet), by the introduction of the Binet–Simon scale in 1905. This mental age scale underwent progressive changes with the emergence of various tests and assessment tools to measure intelligence, personality and related aspects of human behaviour. These tests and assessment tools have been field tested with the use of proper statistical analysis.

Intelligence–Definitions

According to Wechsler, "Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with one's environment."

According to Piaget, "Intelligence is an extension of biological adaptation, consisting of the process of assimilation and accommodation."

Types of Intelligence

1. Abstract Intelligence: This involves the ability to deal with hypothetical or symbolic ideas, numbers and symbols, for example, dealing with mathematical formula understanding theories and concepts.

2. Concrete Intelligence: It is the ability to deal effectively with practical or concrete situations and relationships. It solves problems in every day life, learning new information about the environment, thinking logically and rationally.

3. Social Intelligence: It is the ability to function effectively in ones with others; the ability to adopt to new situation and life changes.

4. Fluid Intelligence: It involves the ability to grasp relationships in new situations quickly and to make correct deductions from them.

5. Crystallized Intelligence: It is the intellectual ability as dependent on cultural factors and learning as these interacts with intelligence. It reflects the effect of culture upon the individual's mental functioning. The components of crystallized intelligence are vocabularies, analogies, numerical skills and habit of logical reasoning.

6. *General Factor:* A factor common to all tests and by extension, to all intellectual tasks. Charles Spearman believed that the 'G' factor represents the general ability to perceive relationship and to draw correlates from them.

7. *Specific Factor:* It is a factor found in only one test or in a very limited range of test. Contrast to General Factor.

Commonly Used Tests

(a) Binet–Kamath Test of Intelligence: Binet-Kamat test is a modified version of Stanford Binet Scale measuring intelligence of Indian children. It is an age scale where in the tests are grouped into age levels extending from 3 years to superior adult level. Each age level consists of six tests. There are no tests for ages 11, 13, 15, 17, 18, 20 and 21 years due to deceleration of mental development at these ages. Alternative tests are also provided at each age level, which can be substituted for regular tests. Binet-Kamat Test includes both verbal and performance tests.

Binet-Kamat test provides an estimate of mental age (MA) and intelligence quotient (IQ). Pattern analysis of the test items provides estimate of specific cognitive functions as comprehension, memory, reasoning and other abilities.

(b) Malin's Intelligence Scale for Indian Children (MISIC): Malin's Intelligence Scale for Indian Children (MISIC), constructed on the model of the popular American test, namely, Wechsler Intelligence Scale for Children (WISC), embraces all the advantages of the original scale along with several improvements. MISIC comprises of eleven sub-tests grouped into a verbal and a performance scale. The verbal scale consists of six tests: Information, Comprehension, Arithmetic, Similarities, Vocabulary and Digit Span. Performance scale consists of five tests: Picture Completion, Block Design, Object Assembly, Coding and Mazes. The test provides a verbal I.Q., a performance I.Q. and a full scale I.Q.

(c) Bhatia's Performance Test of Intelligence: C.M. Bhatia develops the test in 1955. The test consists of five sub-tests – Block Design Test, Alexander Pass Along Test, Pattern Drawing Test, Immediate Memory and Picture Construction Test. The test can be administered on persons of 11 years of the age and above. All five-sub tests are administered in a sequence given above. The obtained raw score are converted into mental age (MA), which can be used to calculate I.Q. of a person.

(d) Wechsler Adult Intelligence Scale (WAIS): The Wechsler

Adult Intelligence Scale (WAIS) has been developed by Dr. David Wechsler (1955) of the Bellevue Psychiatric Hospital to measure the intelligence of adults. The test was standardized based on a sample of 1700 persons, 850 of each sex from four widely separated geographic areas. The subjects ranged in age from 16 years to 64 years. However, the WAIS is not scaled according to age. Instead, the subtests are grouped into two sets of categories; verbal and performance. There are six verbal subtests and five performance subtests. The subtests can be separately scored so that a person's abilities in the various categories can be compared. Moreover the verbal and performance sections of the test can be independently scored to give separate I.Q.'s on each.

Each subtest of the test battery elicits various information about the adult.

Verbal	*Functions*
1. Information	Long term memory.
2. Comprehension	Reasoning with abstraction, concept formation.
3. Arithmetic	Retention of Arithmetic processes.
4. Similarities	Verbal concept formation and analysis of relationship.
5. Vocabulary	Language development, concept formation.
6. Digit span	Short term memory.
Performance	*Functions*
1. Picture Arrangement	Visual insight
2. Picture Completion	Analysis of visual imagery.
3. Object Assembly	Synthesis visual motor integration.
4. Block Design	Perception form analysis of visual motor integration.
5. Digit Symbol	Immediate recall.

(e) Raven's Progressive Matrices Test: Raven's Progressive Matrices Test has three versions 1. Advanced, 2. Standard, and 3. Coloured. This test is developed by J. C. Raven et. al.

1. *Advanced Progressive Matrices (APM):* APM has two sets. Set I contains 12 items where as Set II contains 24 items. If a person scores 12 in the first set, only then Set II is to be administered.

2. *Standard Progressive Matrices:* This scale consists of 60 problems, divided into 5 sets of 12. In each set, the first problem is as nearly as self-evident. The problems, which follow, become progressively more difficult. The order of the

test provides the standard training in the method of working. The five sets provide five opportunities for grasping the method and progressive assessment of person's capacity for intellectual activity.

3. *Coloured Progressive Matrices:* It contains 36 designs, equally divided or distributed in set viz. A, Ab and B. Items are similar to that of the first 3 sets of the SPM. The designs are painted in colour to make it attractive to the children. Another version of this CPM is available which is known as Board Form.

The subject is required to choose among the given alternatives, which will complete the blank space of matrices. The raw scores can be converted into percentile scores. Norms are also given. The test was designed to be used with children as well as adults irrespective of their education, nationality or physical condition to cover the widest possible range of mental ability.

(f) Draw A Person Test: In 1926, F.L. Good Enough published findings that children's drawings relate to intelligence, and the creativity of Good enough in draw a man test as an ability to measure, was established. In 1943 Karen Machower utilized the potentiality of drawing of human figure as a method of personality investigation in her DAP test. She claims that the method has many advantages: 1. It is simple to administer, and 2. It offers direct testimony of the subject's projection, rather than verbal description of it. As a motoric medium, it is often welcomed by the verbally shy or inhibited child. It has almost no limitation of culture, language, age, intelligence or artistic skill. The fantasy ladder test offers a safe opportunity to release emotions frequently with therapeutic effects.

Over a period of time, however the need for a revision of Good Enough DAM test became apparent. In 1963, Harris refined the test by adding a drawing of a woman and the drawing of the self.

The present quantitative scoring system of draw a person test by Jack A. Naglieri has been developed to meet the need for a modernized recently normed, and objective scoring system based test to be applied by human figure drawings of both children and adolescence.

Qualitative scoring of DAP test essentially involves the preparation of a composite personality description from an analysis of many features of the drawing. Among the factors considered are the absolute and relative size of the male and female figures of lines,

sequence, parts drawn, front of or profile view, position of arms, depictive of clothing, background and grounding effects. Special interpretations and given for the omission of different bodily parts, amount and distribution of detail, symmetry and other stylistic features. Significance of the each major body parts such as head, individual facial features, hair, neck, shoulders, trunk, hips and extremities are also equally considered.

(g) Seguin Form Board (SFB): It is also known as Goddard From Board which is a performance test of intelligence. It consists of ten common geometrical forms like circle, square, triangle and others that are to be placed in the from board. It measures motor coordination and perception of form. It also measures learning ability of young children. SFB is used for preliminary assessment of mental age in normal population. The test can be administered on persons of 3½ – 10 years. It can be used upto adult level for mentally retarded persons.

Pile up the blocks in three heaps at the back of the board. The subject is asked to insert these blocks into the corresponding recesses as quickly as possible, using only one hand at a time. Give three trials and time each trial with a stop watch the time (in seconds) taken for each of the three trials in the record sheet. Score is based on the shortest time taken of three trials convert the score into equivalent mental age by referring SFB norms. To compute intelligence quotient (I.Q.) use the following formula:

$$IQ = MA/CA \times 100.$$

Unit Summary

- Psychological assessment is the process of systematic collection, organisation, and interpretation of information about a person and his situation, and the prediction of a person in a new situation.
- The first real success in intelligence testing was the Binet-Simon Test, developed in French.
- Intelligence is an extension of biological adaptation consisting of the process of assimilation and adaptation.
- Some of the concepts of intelligence are abstract intelligence, concrete intelligence, social intelligence, fluid intelligence, crystallized intelligence, general factor and specific factor.
- Binet-Kamat Test, Malin's Intelligence Scale for Indian Children, Bhatia's Performance Test of intelligence, Weschler's Adult Intelligence Scale, Ravens Progressive Matrices and Seguine Form Board are some of the common intelligence tests used in our country.

Check Your Progress

Match the following:

Alfred Binet	Ability to deal withpractical situations
Concrete intelligence	To grasp relationship in new situations
Crystallized intelligence	ntelligence test
Fluid intelligence	Vocabulary

- Write the names of three commonly used intelligence tests.
- Expand, MISIC, WISC, WAIS, SFB
- Write the formula to find the IQ.
- Define intelligence
- Explain various types of intelligence

Activities/ Assignments

- Observe when psychological tests are performed by the psychologist on persons with mental retardation.

Points for Discussion

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Points for Clarification

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PSYCHOLOGICAL ASSESSMENTS

Unit–10
ADAPTIVE BEHAVIOUR SCALES

STRUCTURE

- Introduction
- Objectives
- Definition
- Assessment of Adaptive Behaviour
  - ❖ Adaptive Behaviour Scale (ABS)
  - ❖ Madras Developmental Programming Systems (MDPS)
  - ❖ Behavioural Assessment Scale for Indian Children with Mental Retardation (BASIC-MR)
  - ❖ Vineland Social Maturity Scale (VSMS)
- Unit Summary
- Check Your Progress
- Activities/Assignments
- Points for Discussion
- Points for Clarification

10

Adaptive Behaviour Scales

Introduction

After having a discussion on intelligence tests this unit gives a brief introduction to various adaptive behaviour scales used in India to assess the persons with mental retardation.

Objectives

After learning this unit, you will be able to:
- Define adaptive behaviour.
- Understand the need for assessment of adaptive behaviour.
- Distinguish between different adaptive behaviour scales used in India.

Definition

The adaptive behaviour, in general, refers to the way in which an individual functions in his/her social environment. The American Association on Mental Retardation (1977) defines adaptive behaviour as "the effectiveness or degree with which an individual meets the standard of personal independence and social responsibility expected of his or her age and cultural group".

Nature: Adaptation level theories hold that, people wish to attain an optimal level of stimulation, structure and diversity. However, what determines an optimal level for any given individual and how and why this varies from person to person remains unexplained. Some people find it easy to change from one environment to another. Psychologists say such people are adaptive and flexible.

Adaptive Skills: Adaptive skill refers to an individual's ability to cope with the demands of independent living within the community in a socially approved way. It draws upon the whole range of skills and abilities, ranging from the basic skills like washing

and toileting to more advanced skill such as managing money. Persons with mental retardation or physical disability will usually have lower levels of adaptive behaviour than others. It is the manner in which an individual deals with the cultural, social, physical and mental demands of the environment. Some of the adaptive behaviour skills in the daily routine of an individual are brushing, bathing, management, health care and community awareness.

Assessment of Adaptive Behaviour

The behaviour of an individual changes depending on the types of social situations to which the individual has to respond. Many behaviours, which are appropriate in one setting could be totally inappropriate in another, for example sleeping in the bedroom versus classroom. Sleeping which is an essential biological need becomes an inappropriate behaviour in the classroom; where as, the same behaviour in the bedroom becomes an appropriate behaviour. The mentally handicapped persons are known to exhibit inappropriate behaviour due to skill deficits or problem behaviour. Hence, the purpose of measurement is to determine what areas need special help, or special training in particular situation. Adaptive Behaviour Assessment determines the current level of functioning of the individual. It reflects the strengths of the individual as well as the weakness. Hence, the primary reason for measurement is an effort to help an individual to learn to improve himself and to function within the socially acceptable norms.

Adaptive behaviour assessment, which is based on the direct reporting of observable behaviours gives specific information on the assets and deficits of the individual. The reason for the deficits or not doing a task may fall into the following categories:

A. The individual may never had the experience or opportunity to carry out those particular tasks or behaviours.

B. The individual may have certain physical limitation which prevent the performance of those behaviours.

C. The individual may be totally undermotivated for those particular behaviours because of certain cultural patterns or experiences.

The popular tools, which are being used to assess the adaptive behaviour, are :

1. *The Adaptive Behaviour Scale (ABS)*

This scale was developed by Nihira et. al., originally in 1969. It has gone through a number of revisions since then. The scale was developed to be used for client assessment and individual programme planning and assessing the total programming needs of groups of clients for research purposes. It can be used to make assessment of persons with mental retardation and emotional disturbance of all ages. It is divided into two parts. Part I, is concerned with matters described as adaptive behaviour and comprises ten domains with a total of 66 items. The domains are independent functioning, physical development, number and time, domestic activity, vocational activity, self direction, responsibility and socialization. Part II of the scale is concerned with maladaptive behaviours. These are grouped into 14 domains. They include violent and destructive behaviour, untrustworthy behaviour, withdrawal, stereotyped behaviour, inappropriate interpersonal manners, and unacceptable vocal habits, unacceptable or eccentric habits, self-abusive behaviour, hyperactive tendencies, sexually aberrant behaviour, psychological disturbances and use of medication. There are 43 items in this section of the assessment scale. The ABS is designed for use by some one who knows the individual being assessed. Thus a residential care worker or teacher can complete it. The assessor records responses of the item on the questionnaire and no special training is necessary to complete it.

2. *Madras Development Programming System (MDPS)*

This scale is developed by Prof. Jeychandran and Prof. Vimala (Revised Edition, 1992). It provides information about the functional skills of the mentally retarded persons for purposes of individualized programme planning. The scale contains 360 items grouped under 18 domains viz., gross motor activities, fine motor activities, meal time activities, dressing, grooming, toileting, receptive language, expressive language, social interaction, reading, writing, numbers, time, money, domestic activities, community orientation, recreation – leisure time activities and vocational skills. As an aid to programme planning, the items under each domain are developmentally sequenced along a dependence/independence continuum. The scale has the provision to chart a profile of the current level of functioning of the person with mental handicap, which could be compared with the interventional results for recording the efficacy.

3. *Behavioural Assessment Scale for Indian Children with Mental Retardation (BASIC – MR).*

This scale developed by Peshwaria and Venkatesan (1992), is divided into two parts. Part A, which has seven domains with 280 items, deals with the skills behaviours which are as follows: motor, activities of daily living, language, reading-writing, number-time, domestic-social and pre-vocational, and Part B which deals with problem behaviours, consisting of 10 domains with 75 items, viz., violent and destructive behaviours, temper tantrums, misbehaviours with others, self injurious behaviours, repetitive behaviours, odd behaviours, hyperactive behaviours, rebellious behaviours antisocial behaviours and fears. The information on the scale is collected through direct observation of the child and by interviewing parents. The items in skill behaviours are rated from 0–5, whereas, the range of score under problem behaviours is 0–2. The scale is exclusively developed for the assessment and programme planning for the persons with mental retardation.

4. *Vineland Social Maturity Scale (VSMS)*

The Vineland Social Maturity Scale (VSMS) measures the differential social capacities of an individual. It provides an estimate of Social Age (SA) and Social Quotient (SQ), and shows high correlation (0.80) with intelligence. It is designed to measure social maturation in eight social areas: Self-Help General (SHG), Self-Help-Eating (SHE), Self-Help-Dressing (SHD), Self Direction (SD), Occupation (OCC), Communication (COM), Locomotion (LOM) and Socialization (SOC). The scale consists of 89 test items grouped into year levels.

Unit Summary

- Adaptive Behaviour is the effectiveness or degree with which an individual meets the standard of personal independence and social responsibility expected of his age and cultural group.
- Some of the common adaptive behaviour scales are:
  Adaptive Behaviour Scale (ABS).
  Madras Developmental Programming System (MDPS).
  Behavioural Assessment Scale for Indian Children with MR (BASIC MR).
  Vineland's Social Maturity Scale (VSMS).

Check Your Progress

- Define adaptive behaviour.

- What do you mean by adaptive skills?
- What are the reasons for deficits in adaptive behaviour.
- Name 3 tools which are used to assess adaptive behaviour.
- Write short notes on
  Adaptive behaviour scale (ABS)
  Behavioural assessment scale for Indian children with mental
  retardation (BASIC-MR)
  Madras Developmental Programming System (MDPS)

Activities/ Assignments

- Collect the copy of adaptive behaviour scales from your library.
- Use one of the adaptive behaviour scales to assess a person with mental retardation.

Points for Discussion

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Points for Clarification

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PSYCHOLOGICAL ASSESSMENTS

Unit–11

3&4 : APTITUDE, INTEREST INVENTORIES AND PERSONALITY TESTS

STRUCTURE

- Introduction
- Objectives
- Definition of Aptitude
- Aptitude Tests
- Interest Inventories
- Personality Tests
- Unit Summary
- Check Your Progress
- Activities/Assignments
- Points for Discussion
- Points for Clarification

11

Aptitude, Interest Inventories and Personality Tests

Introduction

The information and knowledge on aptitude, interest inventories, and personality tests would help in vocational rehabilitation of persons with mental retardation. Therefore, this unit deals with these aspects.

Objectives

After learning this unit, you will be able to:
- Define aptitude.
- Discriminate aptitude and interest.
- Get an exposure to various tests to assess aptitude, interest, and personality.

Aptitude–Definition

An 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, such as the ability to speak a language, to become a musician, and to do mechanical work. 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

Differential Aptitude Test (DAT): One of the widely used multiple aptitude batteries is the Differential Aptitude Test (DAT), first published in 1947. The DAT has been revised periodically (Benneth Seashore, and Wesman, 1982, 1984). This battery was designed principally for use in the educational and career counselling of students in grades 8 to 12. The DAT gives the following

eight scores; verbal reasoning, numerical ability, abstract reasoning, clerical speed and accuracy, mechanical reasoning, space relation, spelling and usage of language. The complete battery is available in two equivalent forms. There is also an Oriental Booklet containing a description of each of the eight tests with sample items and explanations, as well as sets of practice items that test takers can answer on a sample answer sheet and can score themselves.

Tests of Mechanical Aptitude: The capacity designated by the term "mechanical aptitude" is not a single, unitary function. It is a combination of sensory and motor capacities, such as those already described, plus perception of spatial relations, the capacity to acquire information about mechanical matters, and the capacity to comprehend mechanical relationships. Thus tests of mechanical aptitude are designed to measure capacity and performance on a higher level of organisation than those of sensory-motor capacity and dexterity.

The assembly test of General Mechanical Ability advised by J.L. Stenquist (1923), the first of its kind, was intended to measure a person's ability to put together the parts of mechanical devices, among them a bicycle bell, a double action hinge, a door lock and a mousetrap.

The Stenquist tests have been revised and extended at the University of Minnesota (1930) and are known as the Minnesota Mechanical Assembly Test. In principle, these are essentially the same as Stenquist's tests, some of the same mechanical devices having been retained, with new ones added.

The Minnesota Spatial Relations Test: It consists of a series of four boards, each of which was 8 cutouts of various shapes, many of them unusual. The subject's task is to replace these in their correct holes in the board. Evidence indicates that persons engaged in mechanical occupations tend, as a group, to earn higher scores than do persons in non-mechanical occupations.

The Revised Minnesota Paper Form Board: It is, as its name indicates, a test that reproduces in printed form the same type of problems as those printed by actual form boards. In each problem, the subject is shown two or more parts of a geometric figure, when correctly assembled; the parts will make the complete figure. It is the subject's task to identify the correctly assembled figure from among five choices. This test is designed to measure one's capacity to visualize and imaginably manipulate geometric forms.

The Tests of Mechanical Comprehension: It presents mechanical

problems in pictorial form. In each instance, accompanying the picture is a statement at the problem depicted, with three or two answers from which to choose the correct one. These tests, on three levels of difficulty, are designed to measure one's understanding of the operations of physical and mechanical principles in relatively simple situations.

Tests of Clerical Aptitude: Clerical aptitude, like mechanical, is not a unitary function. The tests consists of several kinds of items, some of which correlate quite highly with scores on tests of general intelligence but differ from the later in that they contain selected materials that are significant in clerical occupations.

Interest Inventories

An individual's aptitude and abilities ordinarily are not so highly specific that he can be given guidance solely on the basis of aptitude test, motivation, influenced by one's interest, values and preferences—in addition to aptitude and abilities—can determine the selection of a course of study or an occupation.

The Kuder Inventories: These, designed for use from grade I onwards including adults, are in the forms of three preference records vocational, occupational and personal. The first of these provides scores in ten vocational areas— outdoor, mechanical, computational, scientifics, persuasive, artistic, literary, musical, social service and clerical. The secondary may be scored for each of 38 specific occupations, such as farmer, newspaper editor, physician, minister, mechanical engineer, counselling psychologist, architect, and retail clothier. The third is a personality inventory intended to evaluate five very board characteristics of behaviour regarded as significant for certain types or groups of vocations and as having differential value among these. This record gives score for the following characteristics: preferences for 1. being active in groups (for example insurance sales man, industrial engineers), 2. familiar and stable situations (farmers, toolmakers, high school teachers), 3. those working with ideas (professors, authors), 4. avoiding conflict (physician, accountants, professors), 5. directing others (lawyers, business executives, policemen). High scores in each category suggest preference for the activity.

The Strong Vocational Interest Blank (SVIB): This interest inventory, whose latest edition was published in 1985, has a long history. The general approach followed in its construction was first formulated by E. K. Strong Jr. The current Strong inventory consists of

325 items grouped into seven parts. In the first five parts, the respondent records her/his preferences by marking L, I or D to indicate "Like", "Indifferent" or "Dislike". Items in these 5 parts fall into the following categories: occupations, school subjects, activities, leisure activities and day to day contact with various types of people. The remaining two parts require the respondent to express a preference between paired items (e.g. dealing with thing vs dealing with people) and making a set of self descriptive statements "yes" or "no".

Career Assessment Inventory (CAI): First released for operational use in 1987, the CAI is patterned closely on the SVIB–SCII (Johanson, 1982). In contrast to most interest inventories, however it was designed specifically for persons seeking a career that does not require a four year college degree or advanced professional training. It concentrates on skilled trades, clerical and technical work and semiprofessional occupations.

Personality Tests

Personality tests have very different objectives. Personality testing does not involve levels of success or even "right" or "wrong" answers; its objective is not to gauge how successful a person will be but, rather, what the person is usually like (in thoughts, feelings and behaviour patterns).

Personality testing is done for many reasons. A military psychologist may want to measure tendencies that would make a person fit, or unfit, for a sensitive assignment. A clinical psychologist often uses personality tests to evaluate psychological disorders. A variety of methods exist to suit these diverse purposes.

Paper and Pencil Tests: The most convenient kind of measure to use for almost any psychological purpose is a pencil and paper test in the form of a questionnaire or inventory. Such tests can be given cheaply and quickly to large groups of people, and consequently psychologists have constructed a wide variety of them.

Some of the common paper pencil tests are:

1. Minnesota Multiphase Personality Inventory (MMPI)
2. The 16 Personality Factor Questionnaire (16 PF).

Projective Methods: Unlike paper and pencil tests, some personality tests are deliberately designed to evoke highly individual responses. Most of the tests in the later groups are called projective methods. They call for the test taker to respond to stimuli such as inkblot or pictures but provide few guidelines as to what the response should be. The scoring procedures for projective method tests are

also generally less structured than are those for paper and pencil measures; the interpreter must often rely heavily on a subjective evaluation of the responses.

Projective methods are based on the projective hypothesis, derived from Freud's personality theory. The basic idea is that the way people respond to a vague or ambiguous situation is often a projection of their underlying feeling and motives. Often the people responding are not aware of any underlying meaning in their responses, but people trained to interpret projective tests are taught ways of inferring such meaning and judging personality characteristics accordingly.

Thus, projective methods are intended to provide access to unconscious impulses and other aspects of personality of which the test takers themselves may not be aware.

Projective methods are many and varied. Some are completion techniques, tests that call for subjects to finish some products – perhaps a sentence or a story – presented to them in fragmentary form. Others are expressive techniques, tests that call on subjects to express themselves via play, drawing, or drama. Some of the common projective techniques are:

1. Rorschach Ink Block Test (RIB).
2. Thematic Apperception Test (TAT).
3. Children's Apperception Test (CAT).
4. Draw A Person Test (DAP).

Unit Summary

- Aptitude is a combination of characteristic indicative of a person's capacity to acquire special knowledge, skill, or a set of organized responses such as the ability to speak, to become musician, and to do mechanical work.
- Some of the useful aptitude tests are Differential Aptitude Test, Test of Mechanical Aptitude, Minnesota Spatial Relation Test, and Clerical Aptitude Test.
- Interest is another factor, which should be considered along with aptitude for a proper assessment and guidance of an individual. Commonly used interest inventories are Kuder inventories, Strong vocational interest blank, and Career assessment inventory.
- Commonly used personality tests are of two types : **Paper – Pencil, Minnesota multi-phasic personality inventory (16 PF) Projective Techniques–**
  Rorschach Ink Block Test (RIB).

Thematic Apperception Test (TAT).
Children's Apperception Test (CAT).
Draw A Person Test (DAP).

Check You Progress

- Define aptitude.
- Name three aptitude tests.
- Write short notes on test of mechanical aptitude.
- How does the Kuder Inventories help to measure the interest for various occupations,
- Write short notes on the strong vocational interest blank (SVIB).
- Name two paper-pencil personality tests.
- Explain projective method in personality testing.
- What is the difference between completion techniques and expressive techniques.
- Expand RIB, TAT, CAT, DAP.

Activities/ Assignment

- Some persons with mental retardation have specific aptitudes and interests (drawing, mechanical, telling dates, memory of numbers) select five persons and analyze their aptitudes and interests.

Points for Discussion

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Points for Clarification

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BEHAVIOUR MODIFICATION

Unit-12
BEHAVIOUR MODIFICATION

STRUCTURE

- Introduction
- Objectives
- Definition
- Principles Governing Behaviour Modification
- Types of Problem Behaviour/Maladaptive Behaviour
- Steps involved in behaviour management programme:
  - ❖ Identification of problem behaviours
  - ❖ Statement of problem behaviours
  - ❖ Selection of problem behaviours
  - ❖ Identification of rewards
  - ❖ Recording baseline of the problem behaviours
  - ❖ Functional analysis of the problem behaviours
  - ❖ Development and implementation
  - ❖ Evaluation of behaviour management programmes
- Behavioural Techniques in Problem Behaviour Management
- Involving Parents in Behaviour Management Programme
- Unit Summary
- Check Your Progress
- Activities/Assignments
- Points for Discussion
- Points for Clarification

12

Behaviour Modification

Introduction

In the previous units you have analyzed the psychological factors related to vocational training. You got awareness on various types of psychological tests. This unit is going to deal with behaviour management in detail. The scientific knowledge on behaviour problem management is necessary for any one who is involved in the rehabilitation of persons with mental retardation. As you learn the theory, practice the techniques and achieve important skills to manage the behaviour problems seen in persons with mental retardation.

Objectives

After learning this unit, you will be able to:
- Follow the principles governing behaviour modification
- Identify the types of behaviour problems
- Implement the steps involved in behaviour management programme
- Identify the rewards
- Conduct functional analysis of problem behaviour
- Evaluate the behaviour management programme
- Follow the behavioural techniques in problem behaviour management
- Involve parents in behaviour management programme

Definition

Behaviour modification can be used to increase desirable skills as well as to decrease undesirable problematic behaviour. Two of the well-accepted definitions of behaviour modifications are given below:

"Behaviour modification is a technique wherein environmental events are arranged so as to produce a specific change in the observable behaviour" (Ullman and Krasner, 1965; O'Leary, 1977).

"When the methods of behavioural science and its experimental findings are systematically applied with the intent of altering behaviour, the technique is called behaviour modification"(Sulzer and Mayor, 1972).

From the above definitions, it is clear that behaviour modification is a scientific technique, which incorporates structured, pre-planned and specific attempts at modifying observable behaviours, primarily by altering the events in the environment.

Principles Governing Behaviour Modification

- Behaviour modification means changing or modifying behaviour, which is observable, measurable, and recordable.
- Behaviour modification is based on learning principles such as observation, conditioning and cognitive factors.
- Behaviour modification is based on the premise that all behaviours are learnt. Thus, behaviours can be **unlearnt** also, through the same principles.
- Behaviour modification techniques do not believe in hypothetical constructs (intrapsychic experiences which cannot be directly observed or measured).
- Behaviour modification is used both for increasing the desirable behaviours, as well as decreasing undesirable behaviours.

Problem Behaviours and Need for Management: Many times teachers have to work with children who pose a lot of behaviour problems. Teachers have to make important decisions whether a given child's behavior requires immediate management or not. It has been seen that some problem behaviours that are disturbing to adults may be quite normal in the child from a development point of view. For example: fear of animals, darkness, or separation of children below three years from parents, or the fear of imaginary beings (ghosts).

Actually there can be no perfect agreement about whether a particular behaviour is problematic or not. It depends on the person, situation or time of occurrence of the said behaviour before one can call it as problem behaviour. Generally, behaviours are considered problematic if it meets at least one of the following criteria:

2. *Antisocial behaviours:* These include teasing or gossiping about others, bossing or manipulating others, disrupting other's activities, being inconsiderate of others, using bad language.

3. *Rebellious behaviours:* These include ignoring regulations, rules or regular routines, resisting requests or orders, running away from home or school, misbehaving in group situations.

4. *Untrustworthy behaviours:* These include telling lies, cheating, or stealing.

5. *Withdrawal:* These include being inactive, withdrawn or shy.

6. *Stereotyped behaviour and odd mannerisms:* These include repetitive acts, which have no functional value such as body rocking, moving head back and forth and waving fingers. Odd mannerisms may include, for example, holding head tilted, walking with fingers in ears, or hands on the head.

7. *Inappropriate interpersonal manners:* These include behaviours such as talking too close to other's face, hugging or squeezing others and touching others inappropriately.

8. *Unacceptable vocal habits:* These include behaviours such as giggling, laughing inappropriately, making unpleasant noises, or repeating a word over and over again.

9. *Unacceptable eccentric habits:* Examples of these include, smelling everything, stuffing pockets with papers, eating non-edibles, thumb sucking and grinding teeth.

10. *Self-abusive behaviours:* These include biting or slapping self; banging head or other parts of the body, pulling ones own hair.

11. *Hyperactive tendencies:* These include talking excessively, can not sit and attend to an activity without disturbing others.

12. *Sexually aberrant behaviours:* Examples include, masturbating openly, exposing own private parts in public, hugging others in public.

13. *Psychological disturbances:* Examples include, over estimating own abilities, reacting, reacting poorly to criticism or frustration, demanding excessive attention, pretending to be ill.

1. When behaviours are dangerous to self or others. Examples: hits others, bites own hands.
2. When behaviours are inappropriate for the age or development level of the child. Example: a fifteen-year-old girl sucking thumb.
3. When behaviours interfere with learning. Example: a child cries when she is being taught.
4. When behaviours cause unreasonable stress to others. Examples: screams, shouts, pulls others hairs.
5. When behaviours are specially deviant. Examples: steals, tells lies.

If the problem behaviours occur more frequently, or for long periods of time, or is very severe in nature; then, these do require management.

Why Should Teachers Manage Problem Behaviours?

It is important for teachers to manage problem behaviours in children because:

- **Problem behaviours reduce the social acceptability of the child**
- **Problem behaviours may harm the child**
- **It may harm others**
- **It may interfere in the child's learning process of other children at school or home**
- **It may interfere in the learning process of other children at school or home**
- **It may be socially unacceptable and inappropriate for the child's age**
- **It may interfere in the performance of certain other behaviours already learnt by the child**

Types of Problem Behaviour/ Maladaptive Behaviours

The following categories have been taken from the Adaptive Behaviour Scale (Part II) published by American Association of Mental Retardation (AAMR), which has been standardized on institutionalized persons with Mental Retardation.

1. *Violent and destructive behaviours:* These include threatening or doing physical harm to others, damaging personal or other's articles such as clothes, books, breaking windows, or having violent temper or temper tantrum.

Steps Involved in Behaviour Management Programmes

1. Identification of problem behaviours
   2. Statement of problem behaviours
      3. Selection of problem behaviours
         4. Identification of rewards
            5. Recording baseline of the problem behaviours
               6. Functional analysis of the problem behaviours
                  7. Development and implementation of
                     behaviour management programmes
                        8. Evaluation of behaviour manage
                           ment programmes

1. Identification of problem behaviours

Any programme of behaviour management in children must begin with the identification of specific problem behaviours posed by each child. There are many ways of identifying problem behaviours in children, such as, by means of directly observing the child, interviewing parents/caretakers of the child and using a checklist. Many times a child may present just one problem, or more than one problem behaviour. Identifying problem behaviours is the first step towards managing them.

2. Statement of problem behaviours

After identifying the behaviour problems in a given child, the next step is to write them in an objective way. For example, it is not proper to write that "the child is naughty", because being "naughty" may mean different things to different people. It may mean that the child "does not sit at one place for more than fifteen seconds", or that the child "pulls hair", or that he "snatches things from others" and so on. Thus, it is important to state each problem behaviour specifically in observable and measurable terms.

3. Selection of problem behaviours

After identifying the various problem behaviours in a child, and after stating them in observable and measurable terms, we need to select a specific problem behaviour, which we want to change first. This step is called as **prioritizing specific problem behaviours**. It is always preferable to select only one or two problem behaviours at a time, rather than trying to manage all of them at the same time.

Some guidelines for selecting and prioritizing problem behaviours are given below:

- Choose only one or two problem behaviours at a time for management.

- Initially, choose the problem behaviours, which may find easy to manage. This will help gain confidence in managing more difficult problem behaviours later.
- Choose problems, which pose greater danger either to the child himself, or to others in the environment.
- Choose problem behaviours, which interfere most with the child's, or others classroom learning/teaching activities.
- Choose specific problem behaviours for intervention only after due consideration about their relative frequency, duration or severity, that is, how many times it occurs, how long it occurs, or how severe the behaviour is.
- Choose problem behaviour/s so that managing them will help the child to involve more in classroom/school learning activities.
- Choose problem behaviour/s in consultation with the parents especially when it comes to managing them in home situation.

4. Identification of rewards

The identification of rewards is an important step in the development of a Behaviour Management Programme. There are many ways of selecting appropriate rewards for children, such as, by observing a child's behaviour, asking the child directly and asking parents/caretakers who know the child.

After identifying specific rewards for a given child or group of children, they must be arranged in a hierarchy from the most preferred to the least preferred reward. It is only then that the teacher will be able to use the selected rewards judiciously to increase skill behaviours or decrease problem behaviours in children.

5. Recording problem behaviours

Before starting to manage problem behaviours, we need to keep a measure or record of such behaviour/s as they exist currently in the child. This is called as **baseline recording**. However, recording of the problem behaviour/s need to continue even while implementing the intervention programme.

Some of the reasons for recording problem behaviours are:
- Recording helps us to decide whether specific problem behaviour is indeed serious enough to merit management.
- Recording helps us to know whether any changes are really taking place at all in the problem behaviours while implementing the behaviour management programme.

- Recording is a useful and an objective way of conveying the benefits of implementing a behaviour management programme to others. Other teachers, visitors and especially the parents can look at records to know how the problem behaviours were before starting the intervention programme and what have been the results during or after the programme. This helps in increasing the confidence of the teacher in carrying more such programmes for children.
- Recording also helps us to know whether any changes need to be made in the intervention programme in case the methods, decided to be used, are not proving effective.
- Before starting the management programme, baseline recording can be done for minimum three sessions or till such a time that the pattern of existing behaviour is established, that is, till we are able to get a complete picture of the child's existing problem behaviour.
- There are many types of recording problem behaviours. Before beginning to record, we have to decide on what method to be used for recording specific behaviours.

Event Recording: This refers to recording the **number of times** specific problem behaviour occurs in a given child.

Duration Recording: There are some problem behaviours, which occur very little number of times. But, if they occur even once, they may continue for a long time. In such cases, it is best to use duration recording techniques, where the **duration (or how long)** of a given problem behaviour is recorded.

Interval Recording: When problem behaviours occur for specific number of times, we can use event-recording techniques. When they occur over a specific period of time, we can use duration recording techniques.

However, in actual classroom situations, it may be difficult for teachers to continuously observe and record the total frequency or duration of a given problem behaviour. Under such circumstances, we set apart specific intervals of time in a period or day to record whether the specific problem behaviour has occurred or not. If the problem behaviour has occurred many times or even once within that specified interval of time, it is recorded as one occurrence.

Time Sampling: Another way of recording specific problem behaviours is to observe the child and record at specific points of time whether the said behaviour has occurred or not. This is one of the most widely used and economical technique of recording, which can be easily used by the teacher in the group or classroom setting.

Once a specific recording technique is chosen for measuring a problem behaviour, the same technique must be used throughout, that is, during all the stages of implementation as well as evaluation of the intervention programme for that problem behaviour. It is desirable to keep a systematic daily record of behaviour problem/s in every child with disability. However, due to constraints of time it may not be possible for the teacher to continuously record problem behaviours in children. Under such circumstances, the teacher must at least note down reliable impressions about the performance of target behaviour/s chosen for management.

6. Functional analysis of problem behaviours

All behaviours, both skill behaviours and problem behaviours occur because they serve a purpose for the individual. This is true for every human being. Even, when two children show the same problem behaviour, the factors contributing to the problem behaviour may be different for each child. The management of problem behaviours for each child must then be individualised and based upon the understanding of the factors controlling the problem behaviours. If problem behaviours are managed using adhoc methods without an understanding of the factors controlling the problem behaviours, there is a great risk of mismanagement. Such factors may only lead to an increase rather than decrease in the problem behaviours.

There are number of models available for analyzing behaviour problems. One of the simplest models known as **A − B − C** model is presented below. We need to use this model to analyze and understand the problem behaviours in terms of three major components:

(a) What happens immediately **BEFORE** the behaviour? This is called as **ANTECEDENT** factors.
(b) What happens **DURING** the behaviour? This is called as **BEHAVIOUR**
(c) What happens immediately **AFTER** the behaviour? This called as **CONSEQUENCE** factors.

Understanding 'Before' (antecedent) Factors

Analysis of antecedents: Controlling problem behaviour includes answering the following questions:

1. **When** does the problem behaviour generally occur?
2. Are there particular **times** of the day when the problem behaviour tends to occur more? Example, during morning hours, or meal times.

3. With **whom** does the problem behaviour occur? Example, does it occur more in the presence of specific persons/teachers.
4. **Where** does the problem behaviour occur? Are there specific places or situations when the problem behaviour occurs more? Example, in the school playground, or classroom, or at home, or when the child is sitting alone.
5. **Why** did the problem behaviour occur? This includes finding out what factors immediately led to the problem behaviour. Example: Was the child told to do something? or Was the child refused something before the occurrence of the problem behaviour?

The teacher must reassess what is being taught to a given child showing behaviour problems. Sometimes a child may show problem behaviour even because of **factors related to teaching situation.** For example, if the task being taught to the child is too difficult for him to understand or achieve or is beyond the difficulty level manageable by the child.

Understanding 'During' (behaviour) Factors

Analysis of 'during' factors include use of recording techniques to answer the following questions:
1. How many times does the problem behaviour occur?
2. For how long does the problem behaviour occur?

Understanding 'After' (consequences) Factors

Analysis of the 'after' factors includes answering the following questions:
1. What do people in the environment exactly do to stop the specific problem behaviour?
2. What effect does the problem behaviour have on the given child or others?
3. How is child benefiting by indulging in the problem behaviour?

The analysis of consequences or after factors shows that every behaviour of the child is linked with benefits. If there were no benefits the behaviour would cease to occur. Let us examine some of the factors or benefits, which children seem to get when they indulge in problem behaviours. Analysis of these factors will help us to understand and manage several problem behaviours.

Attention Seeking Factors

We must find out whether particular problem behaviour is occurring to get attention. If the problem behaviour tends to occur more when

we are not paying attention to the child, and stops when we attend to the child, it means it is an attention seeking behaviour.

Self-stimulating Factors

Sometimes children learn to indulge in repetitive behaviours, such as, body rocking, finger flicking and so on. This is especially seen in severely and profoundly retarded children. Usually self-stimulatory behaviours increase when these children are left alone, un-stimulated or under-stimulated or at times over-stimulated in their environments. When such children are engaged in a useful activity, these self- stimulatory behaviours tend to reduce.

Skill Deficit Factors

Some problem behaviours in children occur due to skill deficits. When a child has not learnt to behave or respond in appropriate ways, his problem behaviour may be an indirect expression of this underlying skill deficit. For example: a child with poor communication skills, and who does not know how to say "give me the ball" learns to get the ball from the other child by snatching it. In such cases, teaching and building up appropriate skill behaviours become an important task to replace such problem behaviours.

Escape

Many times children may indulge in problem behaviours in order to escape a difficult situation. It may be to get away from specific persons or activities they dislike. If the child's problem behaviour increases in the presence of demands and stops when the demands are removed, it suggests that the child is indulging in the problem behaviour to escape certain demands or situations.

Tangible Factors

Some problem behaviours in children may be actually fetching them tangible/material rewards. For example, if a teacher gives a toy to a crying child so as to make him stop crying, the child may temporarily stop crying. But in the long run, and indirectly, the teacher may have actually taught him to cry more as that would easily fetch him a tangible reward. If the problem behaviour stops when a tangible reward is presented, the function of that problem behaviour could be tangible.

It is important to understand that behaviours of children with disablities can occur due to a combination of many antecedent as well as consequence factors or functions which may be analysed.

7. Development and implementation of behaviour management programmes

Based on a thorough understanding of antecedent and consequence factors controlling specific problem behaviours in children, the teacher must decide about the package programme consisting of various techniques to be used for managing problem behaviours.

If we discover that 'before' factors are more important in determining a specific problem behaviour, we must use techniques that can gain control over these situational factors triggering the problem behaviour.

If we discover that 'after' factors determining specific problem behaviours, we may have to use techniques that help in eliminating the rewards following that problem behaviour.

Guidelines For Developing a Behaviour Management Programme

- Remove pleasant consequences following problem behaviour.
- Provide pleasant consequences following good or desirable behaviours.
- In case the child has been habitually receiving benefits by indulging in problem behaviour, stop those benefits. Instead, provide the same benefits whenever the child performs skill behaviour.
- Teach desirable behaviours which may serve the same purpose as that of problem behaviour. Example, teach the child to say or gesture, "Give me ball" to get the ball instead of hitting the other child and getting the ball.
- Plan the consequences to occur when the child behaves in a desired way or undesired way. For example, present the child with a reward when the child says: "Give me ball" and present an unpleasant consequence when he hits other children.
- For long lasting effects, manage problem behaviours by not only changing or removing the antecedents, but also, by changing the consequences.
- Punishment techniques should be used as last resort. However, if behaviours are harmful to the child or to others, or interfere in learning, the teacher can judiciously plan to use them for the benefit of the child.
- If we choose even a mild punishment technique, then ensure the use of differential reinforcement also in the package programme.

8. Evaluation of behavioural management programme

With the effective use of all the steps in management of problem behaviours, teachers can succeed in changing the problem behaviours in children. Keeping regular records of the child's behaviour is the best way of evaluating if the particular problem behaviour/s they had targeted for change have indeed changed or not. However, teachers can also periodically assess the child.

General Considerations

The following points are to be kept in mind before using any technique of managing problem behaviours.

- A single child may show a number of problem behaviours. The teacher must select the appropriate technique for managing each of these problem behaviours. Thinking that the same technique will help manage all the problem behaviours, may not be true.
- Two or more children with disabilities may show the same problem behaviour. Yet they may need different techniques to manage the same problem behaviour. This may be because the factors controlling the problem behaviour may be different in each child even though the problem behaviour may be same.
- There are no ready-made packages to manage behaviour problems in children. The behavioural techniques to manage specific problem behaviours in a given child is based upon an understanding of the unique combination of "before" and "after" factors controlling that particular problem behaviour in an individual child. Teachers need to individualize and identify specific techniques to manage each problem behaviour.
- Behavior Management Programme is a long-term undertaking. On the other hand, it involves decrease of inappropriate behaviours; and, on the other hand, it necessitates the teaching of more appropriate behaviours to children.

Behavioural Techniques in Problem Behaviour Management

Restructuring of the Environment

Many a times, not only consequences maintain problem behaviour, but they are also maintained, or occur due to particular antecedent factors, or stimulus factors. When we find out that there is something

in the immediate environment, which is leading to problem behaviour, then attempts are made to change the antecedent behaviour, if possible, so that the problem behaviour shall not occur following such a change.

For example, if the child hits, pulls the hair of a boy in class; changing his seat and making him sit with some other boy in the class may help or if a child sits next to the window in the class, concentration is less on the given task, but when his seat is changed next to the wall, he is able to concentrate more on the task. Usually this technique has to be used along with other techniques for more effective results.

Extinction

Rearranging the consequences of a behavior problem so that attention or activity rewards do not follow is more commonly known as ignoring. This includes non-presentation of a reward attention. Ignoring means **NOT** coaxing, **NOT** chasing behind the child, **NOT** scolding, not looking at him, **almost not noticing.** Ignoring is the easiest consequence to describe, yet one of the most difficult to do effectively.

Some problems in using extinction

- Some of the problem behaviours cannot be ignored. For example, if the child is harming others or himself, at that time intervention by another person is essential.
- The problem behaviour initially shows an increase before it actually comes down by using extinction method.
- If extinction is used, then all teachers or all family members have to apply this technique following the particular problem behaviour, otherwise if one teacher does not give the child attention, child can obtain it from another teacher and the problem behaviour shall be maintained.

Guidelines for Effective use of Extinction/ Ignoring Techniques

- Ignoring is the best technique to decrease attention-seeking misbehaviours.
- Always use ignoring techniques for specific attention seeking misbehaviours, in combination with ways of paying attention to the child's good or deserving behaviours.
- When the technique of ignoring is used, there can be initial increase in the problem behaviours of the child. However, in the long run, they will gradually decrease.

- Be consistent in the use of ignoring/extinction techniques. There must be consistency in the use of extinction not only from one time to another, or one place to another, but also between two or more teachers managing the same problem behaviour in the child.
- While using extinction techniques, be indifferent to the problem behaviour even if it is occurring right in front of you. Do not give any indication to the child that you are aware of the misbehaviour at all. Continue whatever activity you are doing at that time. Do not even look at him or stare at his face while he is still indulging in the problem behaviour.
- Avoid giving lectures on how to behave well. Some of us have developed this habit of giving long drawn out advice to children on "how to be a good boy." These "talks" only tend to reward the child's problem behaviour by providing attention. Rather, catch the child when he is doing good things and provide attention.
- Never use extinction techniques for problem behaviours that are either dangerous to the child himself or others.

Punishment

Punishment is the presentation or withdrawal of an event after a behaviour that decreases the particular behaviour. This means removal of a reward or presentation of aversive stimulus following a problem behaviour.

Types of Punishments

Time Out
Physical Restraint
Response Cost
Use of Aversive Stimuli

Time Out: Many a time the behaviour problem is so disruptive that ignoring does not help. Hence, time-out may be used. In using this technique the child is removed from the reward following a problem behaviour. The latter is more effective as one can be sure of reward removal. It is essential to establish that there is a reward present, which is being removed.

Time-out means putting the child in a situation where any possibility for reward is removed entirely for a fixed period of time, usually not longer than 2 to 5 minutes. For example, standing in the corner immediately following problem behaviour or sitting alone in the hall for 2 minutes or staying in the room alone for 2 minutes. For

how long the child has to be separated has to be worked out before. Another method is to remove the reward from the child. For example, if the child is not eating food though he knows how to eat it, he throws the food around, then take away the food plate for a few minutes (2 to 5 minutes).

It is important to note that whatever we take away from the child must be considered pleasant by the child.

Application of Time-out should be done immediately following a problem behaviour. It should be done not with much talking or explaining to the child. It should be done without any eye contact and more so in a mechanical way.

Guidelines for using Time-out Effectively

- Time out is more effective in children who are outgoing, want to be in groups and like being attended by others. Children who are withdrawn, passive, or who like to stay alone, may actually find time-out rewarding, hence of little use.
- Be consistent in the use of time-out techniques.
- Help the child to understand the rules and regulations in the use of time-out techniques. Never use time-out techniques according to your will and wish. Clarify to the child, rules as to when, where, how, why or for what specific problem behaviours time-out is being used. Usually it may be possible to communicate such rules to the child at the time of application in the classroom. Under such circumstances, the best way to demonstrate the rules of time-out is through its implementation itself.
- The time-out area must be chosen carefully. The area must not have things that the child likes or any of the things, which can potentially harm the child. However, it should be safe and well ventilated. It should be a boring place for the child. There should not be too many people walking in and out of the place. If a separate room is being used, care should be taken to see that there is no provision for the child to lock himself from inside.
- In case we are using a time-out room, it will be convenient if we can make a provision such as a one-way mirror on the door of the room. Through this mirror, we can keep a watch on the child, even as the child is unable to see us.
- Time-out only teaches the child what not to do. It does not teach the child what to do. In order to teach the child what to

do we must combine the use of time-out by giving rewards for appropriate behaviours.

Physical Restraint: Mild physical restraint is many a time helpful in bringing down aggressive behaviours. This includes restriction of the physical movement of the child. For example, tying the child's hands immediately at the back for 2 minutes following biting self, or holding his hands tightly to the sides and saying emphatic 'NO' when he tears papers.

Guidelines for use of Mild Physical Restraint

- Physical restraint should be used only for brief periods of time following a problem behaviour (preferably not more than 30 seconds).
- Physical restrain should never be attempted using ropes or chains, which would result in actual physical injury to the child. Teachers should strictly guard against these practices.
- Teachers must monitor problem behaviours very closely when they are using physical restraint. Occasionally children may start enjoying the physical restraint. This will show up if the behaviour problem shows an increase, hence, other techniques of management need to be used.
- No verbal/gestural contact should be maintained with the child during the period of physical restraint.
- Provide rewards to the child when he/she behaves appropriately.

Response Cost: This method is generally used when tokens are being used for desirable behaviours. Following a particular problem behaviour some of the tokens earned by the child is taken back. Hence the person has to pay the cost of doing a particular undesirable behaviour.

Guidelines for Effective use of Response Cost Techniques

- Specify and fix the rules for which specific problem behaviours, what privileges or rewards are to be lost.
- Ensure that the child understands the relationship between the problem behaviour and his earned privileges or tokens being lost.
- The fine or response cost for indulging in specific misbehaviours must be established fairly and reasonably.
- Avoid nagging, threatening or warning the child (that he/she would lose tokens.) before during or after the application of response cost techniques.

- Do not become emotionally involved or feel guilty that the child has lost an earned reward.
- Be consistent in the use of response cost techniques.
- Use response cost techniques in combination with other ways of increasing desirable behaviours.

Use of Aversive Stimuli: This is the last method of treatment to be used if other training methods fail to control a particular problem. It is rarely used. However, it has been used to manage life-threatening behaviours such as severe head banging and severe self-biting.

Over Correction: This technique has been given a separate heading because it is a combination of procedures. It not only teaches what the person should not do but also educates what persons should do. It is of two types : Restitution, Positive Practice.

Restitution: Restitution means restoring the disturbed environment back to more than normal conditions. The person following a problem behaviour, for example, throwing his food on the ground, is asked to clean that place, not only the small area where the food was spilled, but the entire floor or a particular room. If the person refuses to clean, he has to be physically guided to do so.

Positive Practice: This includes practicing the correct ways of behaving. For example, if the child throws rubbish/paper on the floor, he is asked to pick every little paper one at a time and put it in the waste paper basket.

The two methods can be combined to control a particular problem behaviour, or sometimes one of the methods is used. For example, if a child is nodding his head in a stereotypic way without causing any disturbance to the environment then only positive practice method can be used. He will be verbally instructed of physically guided to move his head to the left, then right, then up and then down following verbal instructions. These are called functional exercises because his movement of head has a functional value and purposeless nodding is modified.

Guidelines for Effective use of Over Correction Techniques

- The techniques of over correction are useful only in children who can follow simple instructions.
- If a child refuses to restore the damage done by him he must be physically made to carry out the remaining steps till the over correction is completed.
- Do not nag, talk lecture or argue with the child when the

child is restoring the damage done by him or her.

- Never reward the child after he has finished restoring the damage to a better position than it was before.
- If a child seems to enjoy the overcorrecting procedures, then it may mean that his problem behaviours are simply ways of seeking attention. In such cases, it is better to use alternate techniques of decreasing the problem behaviour.

Conveying Displeasure

In the use of this technique, the teacher is required to give clear verbal commands expressing displeasure to a child following the occurrence of specific problem behaviour. This is also called reprimands. When Manju disturbs the class, the teacher conveys displeasure by saying, "Manju! I don't like the way you disturb the class. Look! You must sit in one place and finish the work."

Guidelines for Using Conveying Displeasure Effectively

- Convey displeasure by telling the child exactly what problem behaviour is inappropriate or undesirable.
- Convey displeasure immediately within seconds after the occurrance of the specific problem behaviour.
- Be firm in your voice and looks while conveying displeasure.
- Encourage the child to behave appropriately by including a statement about the expected appropriate behaviour while conveying what wrong she committed, which you did not like.
- Convey displeasure in a calm and a composed manner.
- When it is all over, do not keep on reminding the child about the past problem behaviour she had committed.
- Preferably, avoid conveying displeasure in public, that is, in front of the child's friends, and peers.
- Never disgrace or insult the child.
- Do not forget to convey pleasure when the child behaviour.

Graduate Exposure for Fears

Graduated exposure techniques are specially used to decrease fears in children, whether in the school or home setting. The procedure of graduated exposure involves a step-by-step gradual exposing of the child to a feared person, place, object, or a situation.

For example, if the child has fear of dogs, initially let him pass by the dog from a long distance while you hold his hand and while he is eating a chocolate or whatever he likes. Then, bring him closer

to the dog while he gets an opportunity to observe a model with the dog. Eventually, take him closer to the dog, and if the dog is friendly, get him to touch it with his hands.

Steps in the Use of Graduated Exposure

- Identify the specific fears in the child and state them in exact behavioural terms.
- Construct a step-by-step hierarchy to the feared person, animal, or thing as the case may be.
- Expose the child in a step-by-step fashion along the hierarchy of fears that has been constructed.
- Begin from the step wherein the child shows least fear and gradually take the child along the other steps until he reaches the final feared objective.

Differential Reinforcement

It is important to note that the above behavioural procedures listed, i.e. restructuring of the environment, extinction and various punishment techniques, MUST be combined with rewards for desirable behaviours. Differential reinforcement means that we specify in advance, in the management plan, which are the desirable behaviours, which we would reward during the management programme and which are the behaviours we will not reward. Differential rewards can be applied in various ways:

Differential Reward of Opposite Behaviours

While using this method, the teacher rewards that appropriate behaviour in a child, which is exactly opposite to the problem behaviour, the teacher wants to decrease. For example, if a child shows "Out of seat" behaviour, the teacher can take every opportunity to reward its opposite "On seat" behaviour. The teacher must make sure that the opposite behaviour is appropriate and by doing which the child simultaneously cannot indulge in the problem behaviour. Other examples include, to reward sharing behaviour in order to bring down snatching behaviours or putting things at appropriate places for throwing things.

Differential Rewards of Other Behaviours

This method requires the teacher to reward the child at the end of every pre-decided time interval during which targeted problem behaviour did not occur. For example, to bring down "Out of seat", behaviour, the teacher decides to immediately reward the child at

the end of each five minutes interval if the child did not get up from his seat. According to this technique the reward is given to the child for not showing the problem behaviour during a specific period of time. This time is gradually increased. The disadvantage of this method is that even if the child indulged in any other problem behaviour during the five minutes interval than the targeted "Out of seat" behaviour he or she will be entitled for the reward.

Differential Reward of Low Rate Behaviour

When it is the intention of the teacher only to reduce the intensity of misbehavior and not to eliminate that behaviour completely, this technique is useful. For example, if a child speaks too loudly he is rewarded only when he speaks slowly. If a child asks permission to go to the toilet more frequently, then reward him if he goes to the toilet only once in three hours.

Differential Reward of Alternate Behaviours

In this method, the teacher identifies other desirable behaviours that the child is required to perform and reward such behaviours immediately. This technique is used along with other techniques for decreasing problem behaviours.

Self Management Techniques

In case of children of mild mental retardation, particularly at the upper age levels, teachers can use techniques, which make them more responsible to mange their own skill behaviours or problem behaviours. The use of these methods will help increase self-control in children whereby also they would start taking the responsibility of their behaviours. There are many forms of self-management techniques that can be tried with better functioning children in the school or classroom settings.

(i) *Self-observation:* The first step in the use of self-management techniques is to teach the child to observe his own behaviour in the given situations in which they occur.

(ii) *Self-recording techniques:* Children can be taught to keep records of their own skilled behaviours and/or problem behaviours by maintaining a daily diary.

(iii) *Self cueing techniques:* The child must be trained not only in the techniques of self recording specific target behaviours, but also in giving cues or hints to oneself whenever and wherever the behaviour is to be increased or decreased.

(iv) *Self-reward techniques:* Most children with disabilities depend greatly on external rewards for learning or

maintaining their behaviour. Teachers must direct these children to seek internal reward for their behaviours in the form of self-satisfaction, feeling of achievement or success on completion of specific tasks or even giving themselves reward for the better performances. For example, the child could be trained to tell himself, "If I finish my work by such and such time, I shall go out to play". In case he does not finish the work in time he must not go out to play.

(v) *Correspondence training:* As part of self-management techniques, teachers can train children with disabilities to make positive self-statements about how they would behave in specific situations. These self-statements made by the child help the child to act corresponding to what he had committed. For example, if a teacher observes that one of the children hits others, snatches bags, or uses abusive languages in the games period, then she asks that child to speak out or write as to how he plans to behave during the games period. The child commits by saying. "I will not hit anybody, I will share my bag with others, I will be polite to others". Initially the child can be prompted to speak out or write down such positive statements. Immediately after the games class is over, the teacher asks the child to speak out or write down or convey through gestures as to how he had behaved in the games class. If his behaviour corresponds well with the statements made earlier, the teacher can reward the child or child can reward himself. This gives an opportunity for children to evaluate their own behaviours and the statements made by them act as cues for appropriate behaviours.

(vi) *Anger control technique:* Some higher functioning children can be trained to observe, identify, record and manage their own anger behaviours by using self-management techniques. Teachers can guide children by observing the following steps:

- Begin helping the child to recognize that he or she is angry in given situation.
- Train him to properly verbalize his anger by saying "I am angry".
- Help him to discover the immediate reason for his anger and allow him to verbalize details about what made him angry.
- Help him to find out the accompanying thoughts and

feelings when he is angry.
- Help the child to replace his angry thoughts or feelings with more adaptive ones.
- As anger leads to physiological responses such as muscular tension, increased heart rate and sweating. The child must be instructed to relax by performing deep breathing exercises or lying down on a bed for some time.

Involving parents in Behaviour management Programmes

When parents/families are involved, any programme of behaviour change initiated at school can be carried home for further practice and supplementary teaching. This strengthens the child's behaviours and increases rate of learning.

Parents/family involvement in the teaching or training of children with disabilities increases the personal worth and sense of participation. Parents begin to feel more responsible for the fulfillment of their child's needs and requirements.

Parents/families understand their child better than any one else. This knowledge can be utilized by the teachers to select appropriate and functional behavioural objectives for teaching the child.

It is important to note that home teaching occurs in the natural environment of the parent and child. Instead of teaching in the school and then transferring to home, skills can be directly taught at home. Some skill behaviours such as bathing occur naturally in the home situation than in artificially created condition at the day care center or day school. These skills can be best taught at home by involving the parents/families in the teaching programmes of their children with disabilities.

Unit Summary

- Behaviours are termed problematic if they are dangerous to self or others, inappropriate for the child's age, interfere with learning or when they are socially deviant.
- The specific steps in identifying and managing problem behaviours include, identifying and stating the problem behaviours, prioritizing a specific behaviour/s for management, identification of rewards, recording the baseline behaviour/s, conducting functional analysis, and development of a suitable behaviour management programme followed by periodic evaluation of the implemented programme.

- The specific methods of recording problem behaviours include event recording, duration recording, interval recording and time sampling respectively.
- Analysis of problem behaviours is carried out in terms of before (antecedents), during (behaviour), and after (consequence) factors; and also, in terms of identification of the specific functions maintaining these behaviours.
- The specific guidelines to develop and implement behavioural package programmes for children with disabilities are, removal of pleasant consequences following a problem behaviour, provision of pleasant consequences following a desirable behaviour, teaching pre-requisite skills, using differential reward techniques.
- Periodic evaluation of the behavioural management programmes must be carried out to ascertain the nature or extent to which behavioural changes have taken place and reasons for minimal or no changes if seen.
- There are several techniques for management of problem behaviours in children with disabilities, such as, changing the antecedents, extinction/ignoring, time out, physical restraint, response cost, restitution, conveying displeasure, gradual exposure for fears, use of differential rewards, and self management techniques.
- When problem behaviours are triggered by factors like the particular settings, places, persons or situations, it is appropriate to use the technique of changing the antecedents.
- Extinction involves removal of attention rewards following a problem behaviour.
- Time-out involves removal of the child from the reward or removal of the reward from the child following the occurrence of a problem behaviour. There are many types of time-out for use in the school or classroom settings.
- Physical restraint involves restricting the physical movements of the child for some time following the occurrence of a problem behaviour.
- Response cost involves the payment of a fine or the cost for indulging in a problem behaviour. This includes the procedure of giving away some thing or event, which the child has earned from showing desirable behaviours.
- Restitution requires the child to restore the disturbed situation following a problem behaviour to a state that is much better

than what it was before the occurrence of the problem behaviour.

- Conveying displeasure involves giving clear verbal commands expressing displeasure to a child following the occurrence of problem behaviour.
- Graduated exposure involves a step-by-step gradual exposing of the child to a feared stimulus, person, place or situation.
- Differential rewards are of many types, such as, differential reward of opposite behaviours, other desirable behaviours, low rate behaviours and alternate behaviours respectively. All these techniques share the common feature of rewarding appropriate behaviours or rewarding the non-occurrence of problem behaviours.
- Self-management techniques are to be initiated and used by persons with disabilities, themselves. There are many forms of self-management, such as, self-observation, self-recording, self-cueing, self-reward, correspondence training, and anger control techniques respectively.
- There are specific steps and guidelines in the use of all the above-mentioned behavioural techniques for management of problem   behaviours in children with disabilities.

Check Your Progress

- Explain the principles of behaviour modification.
- When do you call a behaviour is problematic?
- Explain the types of problem behaviours.
- Give two examples for:
  Anti-social behaviour
  Stereo-type behviour
  Self abusive behaviour
- What are the steps involved in behaviour management programme?
- What do you mean by prioritizing specific problem behaviours?
- Give guidelines for selecting and prioritizing problem behaviours.
- What do you mean by base-line recording?
- Why do you record problem behaviours?
- What are the different types of recording problem behaviours?

- Explain A-B-C Model for problem management.
- Explain the guidelines for developing a behaviour management programme.
- Discuss the behavioural techniques in problem behaviour management.
- Give examples for:
  Restructuring the environment
  Physical restraint
- How will you use extinction technique in behaviour management?
- Explain the method of using punishment in behaviour management.
- Two types of over correction are —————, —————
- What do you mean by functional exercises in positive practice?
- What is 'reprimands'?
- What are the steps used in graduated exposure for fear?
- Define differential reinforcement.
- Give an example for the differential reward of low rate behaviour.
- What are the steps in anger control techniques?
- How will you involve parents in behaviour management? Explain.

Activities and Assignments

- Observe two persons with mental retardation having behaviour problems.
- List the problems you noticed.
- Prepare a problem behaviour management programme for a selected case.

Points for Discussion

Have a discussion on ethical issues and consideration on behavioural management especially using the various techniques explained in this block.

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Points for Clarification

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CREATIVE THINKING

Unit-13
CREATIVE THINKING

STRUCTURE

- Introduction
- Objectives
- Basic Ideas About Thinking
- Stages in Creative Thinking
- Characteristics of Creative Thinking
- Nature of Creative Thinking
- Factors Influencing Creative Thinking
- Social Factors Influencing Creativity
- Components of Creativity
- Creative Thinking in Persons with Mental Retardation
- Unit Summary
- Check Your Progress
- Activities/Assignments
- Points for Discussion
- Points for Clarification

13

Creative Thinking

Introduction

A vocational instructor, to be successful in his profession, should be creative to apply innovative techniques in vocational rehabilitation service. Block IV explains various aspects of creative thinking in detail, so that the vocational instructors can modify their thinking patterns to assess, train and place the persons with mental retardation in suitable jobs.

Objectives

After studying this unit, you will be able to:
- Describe the basic ideas about thinking
- Analyze the process in creative thinking
- Distinguish the personality features of creative people
- Differentiate between convergent thinking and divergent thinking
- Analyze the factors influencing creativity
- Learn incubation and creativity
- Describe the social factors influencing creativity
- Understand the relationship between incubation and creativity
- Describe the social factors influencing creativity
- Examine the creative thinking in persons with mental retardation

Basic Ideas About Thinking

Thinking is the crown jewel of cognition. Thinking is a process of which a new mental representation is formed through the transformation of information by complex interaction of the mental attributes of judging, abstracting, reasoning, imaging and problem

solving. Thinking is the most inclusive of the three elements of thought process and is characterized by comprehensiveness. When you read a book, information presumably passes through a sequence from a sensory store to a memory store. Then that new information is transformed, and the consequence is an original product.

There are three basic ideas about thinking (Mayer, 1983):

- Thinking is cognitive. It occurs "internally" in the mind, but is inferred from behaviour.
- Thinking is a process that involves some manipulation of knowledge in the cognitive system.
- Thinking is directed and results in behaviour that 'solves' a problem or is directed towards a solution. Thinking consists of the cognitive rearrangement or manipulation of both information from the environment and the symbols stored in long term memory. A symbol represents, or stands for, some event or item in the world; as we will see, images and language symbols are used in much of our thinking.

The general ideas about thinking given above, encompasses many different varieties of thought. For instance, some thinking is highly private and many use symbols with very personal meanings. This kind of thinking is called autistic thinking; dreams are an example of autistic thinking. Other thinking is aimed at solving problems or creating something new; this is called directed thinking.

Thinking uses images and language. The images used in thinking are abstractions and constructions based on information stored in long-term memory. In using language as a 'tool of thought' we draw on word meanings and grammatical rules stored in our semantic long-term memories. While language is often used in thinking, we don't literally talk to ourselves' when thinking.

Stages in Creative Thinking

A long time ago in the history of cognitive psychology, Wallas (1926) described the creative process having four sequential stages:

1. *Preparation:* Formulating the problem and making initial attempts to solve it.
2. *Incubation:* Leaving the problem while considering other things.
3. *Illumination:* Achieving insight to the problem.
4. *Verification:* Testing and/or carrying out the solution.

The above four-stage model of the creative process has given us a conceptual framework to analyze creativity. A brief description of the four stages are given below:

Preparation: A common theme in biographies of famous men and women is the notion that even during their early childhood, ideas were being developed knowledge was being acquired and tentative thoughts in a specified direction were being tried out. These early ideas frequently shape the ultimate destines of the creative person. One of the many mysteries of the process is why other individuals who share similar environmental stimulation (or, in many cases, deprivation) fail to be recognized for their creative talent. May be more attention should be given to the genetic bases of creativity.

Incubation: Why is it that a creative break, frequently follows a period, in which the problem is allowed to lie fallow? Perhaps the most pragmatic answer is that more of our life is devoted to recreation, watching television, playing and travelling than is rock-hard thinking about a problem that needs a creative solution. So creative acts are more likely to follow dormant periods simply because those periods occupy more of our time.

Posner (1973) offers several hypotheses about the incubation phase. One suggestion is that the incubation period allows us to recover from the fatigue associated with problem solving. Another reason is that during the incubation period we may actually work on the problem unconsciously. Finally, interruption of the problem-solving process may allow for reorganization of materials.

Illumination: Incubation does not always lead to illumination. When it does, however, the sensation is unmistakable. Suddenly, the light bulb is turned on. The creative person may feel a rush of excitement as all the bits and pieces of ideas fall in to place. The pertinent ideas complement each other and irrelevant thoughts are discarded.

Verification: Following the euphoria that sometimes accompanies an insightful discovery, the idea is tested. This is the mapping up stage of the creative process in which the creative product is examined to verify its legitimacy.

This stage gives us a general picture of the steps frequently involved in the solution of problems by our most talented and creative people. Another approach to the study of creative thinking is to see how it differs from the more routine kinds of thinking we do.

Characteristics of Creative Thinkers

Although creative people are generally high in intellectual ability as measured by standardized intelligence tests, they are not necessarily

in the very highest brackets measured by these tests. Many creative people are talented in some special way in music or mathematics for instance. In other words, they have certain specific abilities that they can use in their search for new ideas. And while many creative thoughts come as sudden insights, such 'lashes" are more likely after hard thinking about a problem, so diligence and strong motivation to work at solving problems are characteristic of creative thinkers.

People who think creatively seem to have some personality features in common.

- They prefer complexity and some degree of apparent imbalance in phenomena.
- They are more dynamic in achieving the aims in life.
- They are more independent in their judgments.
- They are more self-assertive and dominant.
- They reject suppression as a mechanism for the control of impulse.

Nature of Creative Thinking

Several attempts have been made to develop tests that will measure creativity in people. In one elaborate study (Guilford, 1967), a battery of tests, was constructed and carefully analyzed. Out of this work came the concepts of 'convergent' and 'divergent thinking'. Convergent thinking is concerned with a particular end result. The thinkers gather information relevant to the problem and then proceed, by using problem-solving rules, to work out the right solution. The result of convergent thinking is usually a solution that has been previously arrived at by someone else. Covergent thinking is not the type of thinking people primarily use when they think creatively.

The characteristic of divergent thinking is the variety of thoughts involved. When thinking creatively, people lend to think in a divergent manner, thus having many varied thoughts about a problem. Divergent thinking includes autistic thinking and some covergent thinking. The creative thinker may use convergent thinking to gather information and thoughts as building materials for the ultimate creative solution. At times, the person may drift into autistic thinking, or free association, in which the symbols of thought have private meanings. In the process of this autistic thinking, some useful ideas that would have been messed by concentrating strictly on the problem may occur.

Factors Influencing Creativity

Psychologists may disagree about how to define and measure creativity. However they would agree in supporting efforts to enhance creativity. Let us consider two popular techniques designed to enhance creativity and then consider two additional factors that can affect creativity.

Brain-Storming: One of the most common approaches to encouraging creativity is Osborn's (1957) brain-storming principle. BRAIN -STORMING is a process conducted in a group setting in which there are four basic guidelines.

- *Evaluation of ideas must be withheld until criticisms are ruled out.*
- *The wilder the idea, the better. It is easier to tame an idea.*
- *The greater the number of ideas the better.*
- *People can combine two or more ideas proposed by others.*

Osborn maintains that the spirit of a brain-storming session is important. People should encourage themselves as well as encourage one another. Complete friendliness and a relaxed frame of mind are especially important.

The brain storming technique had good publicity in the popular press. Recently, however, psychologists have become increasingly skeptical about the value of this technique (Gilhooly, 1988; Weisburg, 1986). Weisberg's review of the literature, for example, questions both the assumptions underlying brain-storming and its practical usefulness. Weisburg does not agree with the assumption that creativity depends on the number of diverse ideas produced. Perhaps, people can often be more creative when they are left alone, than working in groups.

Furthermore, brain-storming groups may produce a greater number of ideas than groups urged to think critically, but their ideas are often lower in quality. Brain-storming may indeed be effective in some circumstances, but it does not seem to guarantee creative production of ideas.

Synectics: Another approach to encouraging creativity is called synectics (Gordon, 1961), SYNECTICS encourages the use of analogies in creative thinking. The method includes the following kinds of analogies:

- The personal analogy encourages you to place yourself directly in the situation. For example, if you want to make a particular machine work more efficiently, imagine that you are that machine.
- The direct analogy encourages you to find something else that solves the problem you are examining. Alexander Graham Bell did this when he considered how the relatively huge bones of the human ear could be moved by a relatively delicate membrane, and he invented telephone, in which a piece of steel is moved by a membrane.
- The symbolic analogy uses objective, impersonal, or poetic images to describe a problem.

Does the synectics method work? As Gilhooly (1988) points out, the method has been widely used by industries and other organizations. However, we do not yet have substantial research to document whether it truly enhances creativity.

Incubation and creativity:
Incubation means that you are more likely to solve a difficult problem if a delay is placed between a period of intense work on the problem and a second work session (Yaniv and Mayer, 1987). Many artists, scientists and other creative people testify that incubation helps them solve problems creatively.

Social Factors Influencing Creativity

We have described two methods that are supposed to enhance creativity. We also lack strong evidence for the value of incubation. Fortunately, the research on social factors is much more impressive.

Amabile (1983) presents convincing evidence that expectation of evaluation can undermine creativity. When you expect your work to be evaluated, the product may not be less appealing or less technically appropriate, but it is likely to be less creative.

Research has also documented how other social factors can influence creativity. Amabile (1990) outlined how creativity is reduced under these conditions:

- When someone is watching you while you are working.
- When you are offered a reward for being creative.
- When you must compete for prizes; and
- When someone restricts your choices about how you can express your creativity.

Components of Creativity

Creative thinking has four major components

- Flexibility,
- Originality,
- Elaboration,
- Fluency.

Flexibility is the measure of the ability to change from one form of thinking to another.

Originality indicates the uniqueness of a response. The response may be of high, medium or low quality.

Elaboration is the measure of number of ideas used to build the basic response.

Fluency is the number of relevant responses given within a specified time.

Creative Thinking in Persons with Mental Retardation

The great majority of the studies done in this field has been on intellectually gifted children. It seems that most investigators have not considered the possibility that children of below average intellectual functioning may exhibit some degree of productive thinking ability.

How do retarded children compare with normal children in productive thinking abilities? And can the productive thinking abilities of educable mentally retarded children be improved?

A comparison of the productive thinking abilities of retarded and normal children was attempted by Crawley (1966). One verbal and two non-verbal measure of productive thinking were administered to a group of 26 children with mental retardation attending special class, a group of 26 retarded children attending regular class, and a group of 26 children of normal intelligence. The three groups were of same mental age. Crawley found that no significant difference existed among the groups on the measures used. He also found no significant correlation between mental age, IQ and the productive thinking modes utilized.

Tisdall (1962) was one of the first to investigate the effect of schooling on the productive thinking abilities of retarded children. He administered Torrance Test to a group of retarded children in regular classes, a group of retarded children in special classes and a group of normal children. He found no significant differences among the groups in non-verbal measures. However, the average performance for the normal and special class groups were significantly better than the average of the regular class retarded groups on measures of verbal productive thinking.

A more direct attempt to influence the productive thinking abilities of children with mental retardation was attempted by Rouse (1965). The experimental classes were exposed to a six-week programme of productive thinking activities devised by the investigator. The regular classroom teachers were trained to administer the programme. The results indicated that the experimental group performed significantly better than the control group.

The following conclusions seem to be appropriate:

- The result of the above study reveals that there is no significant relationship between productive thinking, IQ and academic achievement.
- Educable mentally retarded children demonstrated a lower level of verbal productive thinking than normal children, but seemed to be equal to the normal children on measures of non-verbal productive thinking.
- Conflicting evidence exists with regard to the possibility of improving productive thinking abilities of retarded children.

Unit Summary

- Thinking is a process of which a new mental representation is formed through the transformation of information by complex interaction of the mental attributes.
- Thinking uses images and language.
- Preparation, incubation, illumination and verification are the four processes of thinking.
- Characteristics of creative people are:
  Prefer complexity.
  More dynamic
  More independent in judgment,
  More self-assertive and dominant.
  Reject suppression as a mechanism for the control of impulse.
- Brain-storming and synectics are the two common approaches to encourage creativity.
- Social factors have a definite role to influence creativity.
- Flexibility, fluency, originality and elaboration are the four major components of creativity.
- The role of mentally retarded children in productive thinking are summarized as:

The result of research studies regarding productive thinking in persons with mental retardation reveals that there is no significant relationship between productive thinking, IQ and academic achievement.

Educable mentally retarded children demonstrated a lower level of productive thinking than their normal counterpart, but seemed to be equal on measures of non-verbal productive thinking.

There is a controversy regarding the improvement of productive thinking abilities of retarded children.

Check Your Progress

- A symbol stands for ——————————.
- Symbols stored in ——————————.
- Explain three basic ideas about thinking.
- What do you mean by direct thinking?
- Explain the various stages in creative thinking.
- Discuss the characteristics of creative thinking.
- What is the difference between convergent thinking and divergent thinking?
- Discuss the factors influencing creativity.
- Write a short note on brain-storming.
- Explain the analogies used in creative thinking.
- What are the social factors influencing creativity/What are the major components of creativity.

Activities and Assignments

Exercises to improve creativity:

- Show different objects and ask the students to frame as much questions as possible.
- Give group work for problem solving.
- Brain-storming: the implications of various acts for the employment of persons with mental retardation. Give activities to the adults with mental retardation related to vocational training, check how they use their creative idea. Arranging a room for a meeting/party. Preparing a template to improve quality of work.

Points for Discussion

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Points for Clarification

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