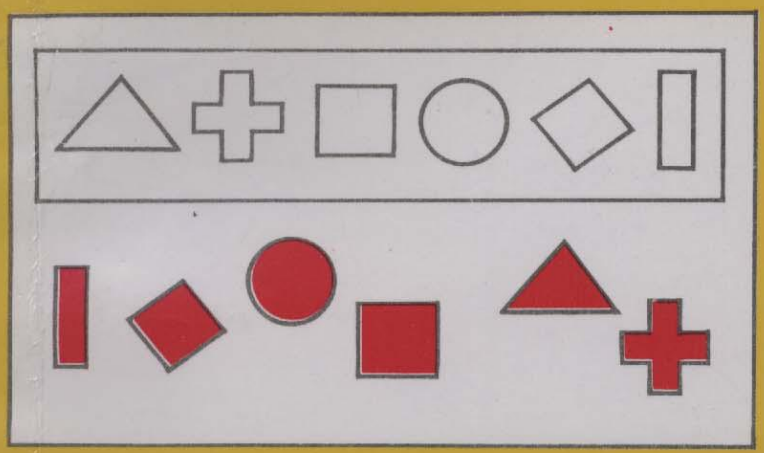
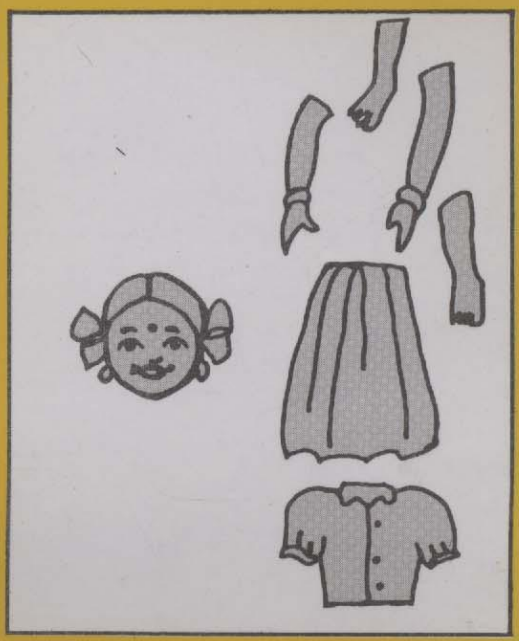
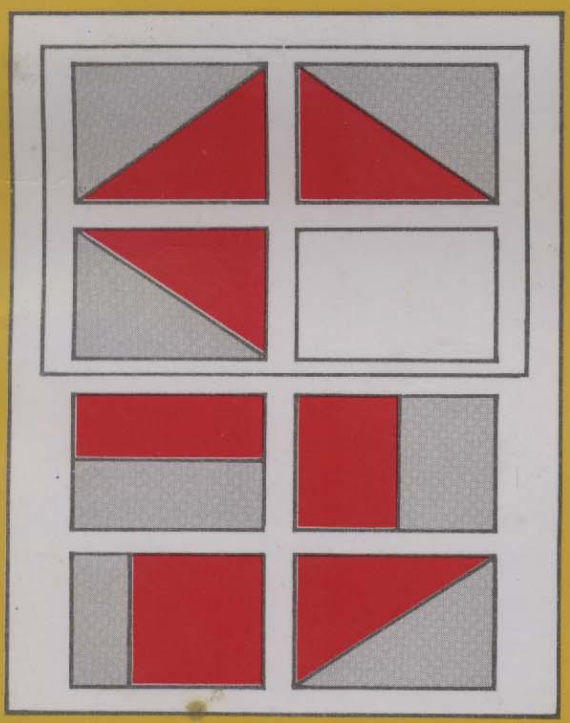
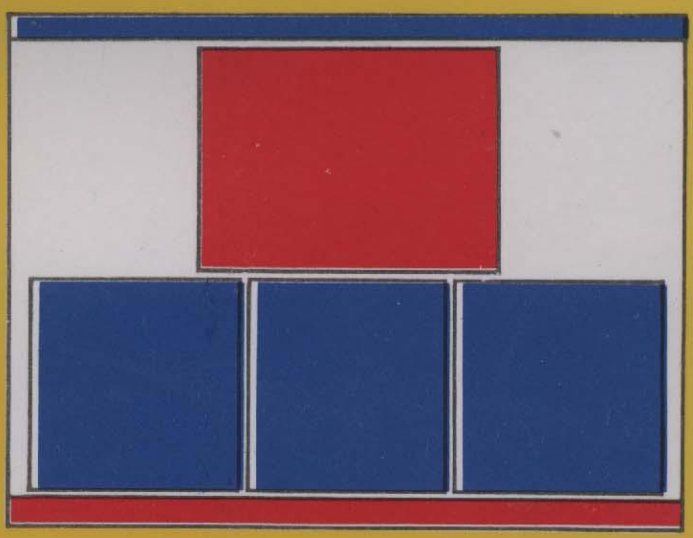
Mental Retardation

A Manual for Psychologists









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MENTAL RETARDATION

A Manual for Psychologists

(This manual can also be used by medical officers, special teachers, physiotherapists, occupational therapists, speech pathologists, teachers of normal schools and other professionals working in the area of mental retardation.)

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MENTAL RETARDATION

A Manual for Psychologists

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PREFACE

In the DRC Scheme, the psychologist is required to undertake assessment of individual functional capabilites, and give guidance and counselling for rehabilitation. In the case of mental retardation, the psychologist is required to play a central role, as he/she is required not only to undertake detailed assessment, but also prepare a programme for management, care and training of persons with mental handicap. Further, the psychologist is required to periodically interact with multirehabilitation therapists, multirehabilitation assistants and village rehabilitation workers, by providing expert consultation to the cases referred by these functionaries. Initially, the task assigned to the psychologist of DRC is to provide early intervention services, however, when the DRC scheme is fully implemented, the psychologist will also undertake responsibility for training and rehabilitation of persons with mental handicap with support from other colleagues. Keeping that in view, the manual for psychologists has been developed with the purpose of establishing a network of early intervention services for mentally retarded children. This manual can also be used by departments of psychiatry, departments of paediatrics, or other service centres dealing with child development. It is our earnest hope that early intervention services should be made available for children with developmental delays at far and wide corners of the country.

Dr. D.K. MENON
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Date: 24, February 1989

About the Manual

This manual is written to help the vocational guidance counsellors of the district rehabilitation centre scheme. This is one of a series of four manuals intended to guide the workers in the rural areas in the early identification and management of mental handicap in children. Persons working in the area of mental retardation such as soical workers, vocational trainers, officers of the special employment exchange and such other persons may also find this manual useful as it covers general information on mental retardation. The manual consists of five chapters giving information on definition and classifcation, causes and prevention, identification and referral, management and vocational training and jobs placement.

Keeping in view the functions of the vocational guidance counsellors, at the district rehabilitation centre, the chapters planned cover the community awareness, parent counselling, vocational training and job placement. The details of various jobs that can be undertaken by the mentally retarded persons and a checklist for prevocational level assessment which is currently under field trial at NIMH are given in the last chapter.

This manual is complementary to the manual, Mental Retardation - A manual for psychologists. The first three chapters are common in both the manuals. For details of psychological assessment, skill training and behaviour management, the guidance counsellor should refer the manual for psychologists. After reading the manual, the guidance counsellor will be in a position to identify persons with mental retardation, and guide the parents appropriately on the management. He will also be in a position to choose appropriate jobs in the rural area for the mentally retarded persons. Each chapter has instructional objectives at the beginning and a self evaluation questionnaire at the end. It is hoped that the reader will find the manual beneficial in acquiring knowledge and skills to guide the mentally retarded persons in the community.

T.MADHAVAN
Chief Investigator &
Project Coordinator

December, 1988

Acknowledgements

We express our sincere thanks to many persons of NIMH who gave valuable suggestions on the first three drafts of this manual. We are thankful to Project Advisory Committee members, Prof. N.K. Jangira, Mr. P. Jayachandran and Dr.K.Mohan Isaac for their constant guidance. We express our gratitude to the UNICEF for their financial assistance to carry out the project. We extend our thanks to the Director, staff and trainees of NCERT, New Delhi for their kind help in field testing the manual.

The write up on Integrated Education for the Disabled was contributed by Prof. N.K.Jangira of NCERT, the NIMH developmental screening schedule and the format of Gesell's Developmental schedules were contributed by Mrs. Saroj Arya of NIMH. We thank them for their kind contribution.

We thank Miss Vijayalakshmi Myreddi and Ms. Shyamala Kumari, research staff during the initial phases of this project for their kind help. We thank Mr. Nageswar Rao, artist for his patient work in the preparation of illustrations which had to undergo number of changes. We profusely thank Mr.Subrahmanyam and his band of workers from New Era Print packs, Secunderabad for their interest and zeal in making this manual come out in print. The help rendered by Mr. A.Venkateswara Rao and Miss P.Naga Rani in typing the manuscripts is gratefully acknowledged.

T.MADHAVAN

CHAPTER - 1

DEFINITION AND CLASSIFICATION

OBJECTIVES :

On completing this chapter the guidance counsellor will be able to:

1. Define mental retardation.
2. Explain the components of mental retardation.
3. Specify medical, psychological and educational classification.
4. Describe the prevalence of mental retardation in India.
5. List the functional level of various groups of mentally retarded persons.

CHAPTER - 1

Definition and Classification

Mental Retardation, mental deficiency, mental subnormality and mental handicap are the terms used to refer to the same condition. The terms used in the past such as amentia, idiocy, feeble minded, moron, imbecile and oligophrenia are now obsolete.

DEFINITION:

There are many definitions of mental retardation. The most comprehensive among them is the one given by the American Association on Mental Retardation (AAMR). The definition as given in 1983 is:

> MENTAL RETARDATION REFERS TO SIGNIFICANTLY SUBAVERAGE GENERAL INTELLECTUAL FUNCTIONING, RESULTING IN OR ASSOCIATED WITH CONCURRENT IMPAIRMENTS IN ADAPTIVE BEHAVIOUR, AND MANIFESTED DURING THE DEVELOPMENTAL PERIOD.

'GENERAL INTELLECTUAL FUNCTIONING' is defined as the results obtained by the administration of standardized general intelligence tests developed for the purpose, and adapted to the conditions of the region / country.

'SIGNIFICANTLY SUBAVERAGE' is defined as IQ of 70 or below on standardized measures of intelligence. The upper limit is intended as a guideline; it could be extended to 75 or more, depending upon the reliability of intelligence test used.

'ADAPTIVE BEHAVIOUR' is defined as the degree with which the individual meets the standards of personal independence and social responsibility expected of his age and cultural group. The expectations of adaptive behaviour vary with the chronological age. The deficits in adaptive behaviour may be reflected in the following areas:

- During infancy and early childhood in

1. Sensory and motor skill development
2. Communication skills (including speech and language)
3. Self help skills
4. Socialization

- During childhood and adolescence in

5. Application of basic academic skills to daily life acitivities.

6. Application of appropriate reasoning and judgement in the mastery of the environment.

7. Social skills

- During late adolescence and adult life in

8. Vocational and social responsibilities and performances.

'DEVELOPMENTAL PERIOD, is defined as the period of time between conception and the 18th birthday.

CLASSIFICATION:

The Objectives of classification are:-

1. Assistance in the use of an acceptable, uniform system throughout the world,

2. Helping in diagnostic, therapeutic and research purposes, and

3. Facilitating efforts at prevention.

There are different methods of classification of mental retardation. They are medical, psychological and educational as given in table - I. The medical classification is based on the cause, the psychological classification on the level of intelligence and the educational classification on the current level of functioning of the mentally retarded person / child.

Table - I

CLASSIFICATION OF MENTAL RETARDATION

Medical	Educational
1. Infections and Intoxications	1. Educable
2. Trauma or physical agent	2. Trainable
3. Metabolism or Nutrition	3. Custodial
4. Grossbrain disease (post natal)	
5. Unknown prenatal influence	Psychological
6. Chromosomal abnormality	1. Mild - (50-70)
7. Gestational disorder	2. Moderate - (35-49)
8. Psychiatric disorder	3. Severe - (20-34)
9. Environmental influence	4. Profound - below 20
10. Other influences	

The various classifications provide an understanding of the level at which the mentally retarded person functions with respect to his education, appropriate behaviour and the degree of his independence. The characteristics of the mentally retarded persons vary depending upon the level of retardation. The terms currently used to describe the various degrees of mental retardation are mild, moderate, severe and profound. Table- II describes the characteristics of persons with various degrees of mental retardation.

Every mentally retarded person may not exactly fit in the above description. There may be specific strengths and weaknesses in each person. The description of the various groups of mentally retarded persons as given in the table may sometimes overlap in a given case.

Before labelling a person as mentally retarded, especially in the mild category, certain factors have to be considered. Members belonging to low socio-economic groups and certain cultures may score low on standard tests of intelligence and thus may be termed as mentally retarded. However, they will be functioning within normal limits according to their culture's criteria. Therefore, one must be cautious before labelling a person as mentally retarded.

The maximum mental age a person can attain with the various degrees of mental retardation is given in Figure 1.

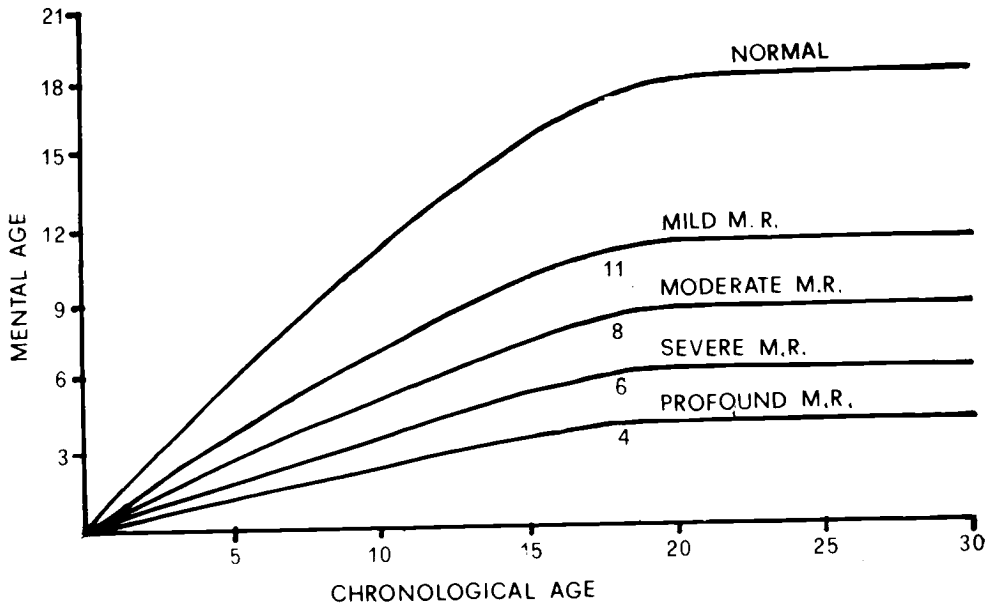


FIG – 1 MENTAL AGE VS DEGREE OF MENTAL RETARDATION

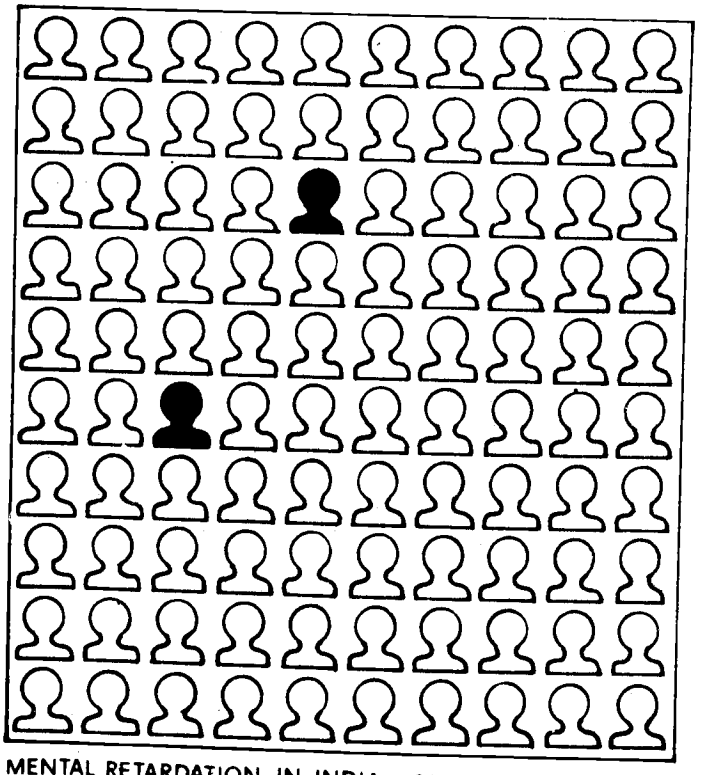
Table - II : CHARACTERISTICS OF PERSONS WITH VARIOUS DEGREES OF MENTAL RETARDATION

Severity level / Description	Mild	Moderate	Severe	Profound
Preschool 0-5 yrs	Can develop social and communication skills, minimal retardation in sensori motor areas, often not distinguished from normal until late age.	Can talk or learn to communicate; poor social awareness; fair motor development, profits from training in self help; can be managed with moderate supervision.	Poor motor development, speech minimal; generally unable to profit from training in self-help; little or no communcation skills.	Gross retardation; minimal capacity for functioning in sensori motor areas; needs nursing care.
School age 6-20 yrs Training and Education	Can learn academic skills upto approximately 6th grade level by late teens; can be guided toward social confirmity.	Can profit from training in social and occupational skills; unlikely to progress beyond 2nd grade level in academic subjects; may learn to travel alone in familiar places.	Can talk or learn to communicate; can be trained in elemental health habits; profits from systematic habit training.	Some motor development present; may respond to minimal or limited training in self help.
Adult 21 and over Social and vocational adequacy	Can usually achieve social and vocational skills adequate to minimum self support but may need guidance and assistance when under unusual social or economic stress.	May achieve self maintenance in unskilled or semi-skilled work under sheltered conditions; needs supervision and guidance when under mild social or economic stress.	May contribute partially to self maintenance under complete supervision; can develop self protection skills to a minimal useful level in controlled environment.	Some motor and speech development; may achieve very limited self-care; needs nursing care

Adapted from Mental Retardation Activities of the U S Department of Health, Education and Welfare, P.2 United States Government Printing Office, Washington D.C., 1963. Printed in Modern Synopsis of Comprehensive Text Book of Psychiatry/IIIThird Edition - Eds - Herold. I. Kaplan and Benjamin, J.Sadock Williams and Wilkins Company - Baltimore - 1981.

PREVALENCE:

It is generally considered that 2% of the population constitute persons with mental retardation. However, there is no systematic National Survey conducted to determine the prevalence of mental retardation in India. Recently, it has been estimated that in India, there are about 20 million persons who are mildly retarded and about 4 million persons who are moderately and severely retarded. Table - III gives the details of various prevalence studies conducted in India. It can be observed from the table that the figures for prevalence of mental retardation in India vary from 0.22 to 32.7 per thousand population. This is because the methodology, the time, the type of population and the sample size were not uniform in all the studies and the operational definition of a case of mental retardation varied from one study to the other. In addition, these surveys were carried out with the intention of finding out the psychiatric morbidity and not mental retardation per se.



MENTAL RETARDATION IN INDIA – 2%

Table - III : PREVALENCE OF MENTAL RETARDATION IN INDIA

SL. NO.	Investigators	Year	Place	Population Studied	Type of Community	Prevalence Per 1000 Population
1.	Surya et al	1964	Pondicherry	2,731	Urban Slum	0.7
2.	Sethi et al	1967	Lucknow	1,733	Urban	22.5
3.	Gopinath	1968	Bangalore	423	Rural	4.72
4.	Dube	1970	Agra	29,468	Mixed	3.7
5.	Elnagar	1971	Hooghly	1,383	Rural	1.4
6.	Sethi et al	1972	Lucknow	2,691	Rural	25.3
7.	Varghese	1973	Vellore	2,904	Urban	3.2
8.	Sethi et al	1974	Lucknow	4,481	Urban	10.5
9.	Thacore et al	1975	Lucknow	2,696	Urban	14.0
10.	Nandi	1975	Calcutta	1,060	Rural	2.8
11.	Nandi	1976	Calcutta	1,078	Rural	3.7
12.	Carstairs & Kapur	1976	Kota	9,111	Rural	10.0
13.	Nandi	1980	Calcutta	4,053	Rural	8.6
14.	Nandi	1980	Calcutta	1,864	Mixed	10.7
15.	Shah	1980	Ahmedabad	2,712	Urban	1.8
16.	Isaac & Kapur	1980	Bangalore	4,209	Rural	3.6
17.	Shalini	1982	Bangalore	451	Rural	32.7
18.	ICMR	1983	Bangalore	35,548	Rural	1.32
19.	ICMR	1983	Baroda	39,655	Rural	2.33
20.	ICMR	1983	Calcutta	34,582	Rural	0.58
21.	ICMR	1983	Patiala	36,595	Rural	0.22

Summary

1. The AAMR definition of mental retardation gives the components of mental retardation as significantly subaverage intelligence, impairments in adaptive behaviour and manifestation before the age of 18 years.

2. The medical, psychological and educational classification of mental retardation are based on the cause, intellectual level and current level of functioning respectively. The functional level of each of the groups of mentally retarded persons is given.

3. The prevalence of mental retardation in India is estimated at 2% of population. There are a number of prevalence studies which give figures varying from 0.22 to 32.7 per thousand population.

Self Evaluation - I

1. The components of AAMR definition of mental retardation are

   a. _____ b. _____ c. _____

2. Approximately _____% of population in India is considered mentally retarded.

3. There are variations in the prevalence of mental retardation in India. The reasons for them could be lack of uniformity in

   a.

   b.

   c.

4. Match the following:

1. IQ level	a. medical	( )
2. level of functioning	b. psychological	( )
3. cause of MR	c. adaptive behaviour	( )
4. deficient in MR	d. educational	( )

5. Match the following:

1. severe	a. 50-70	( )
2. mild	b. 35-49	( )
3. moderate	c. below 20	( )
4. profound	d. 20-34	( )

6. Study the following statements carefully and say whether they are true or false.

1. A five year old child with mild mental retardation cannot be distinguished from a normal child of five years in many areas of development. True/False

2. A 15 year old person with moderate mental retardation can go beyond 5th grade level in academic subjects. True/False

3. A 21 year old person with severe mental retardation can be trained in all the vocational skills and can support himself and his family. True/False

4. A 12 year old child with profound mental retardation will respond for training in self help skills. True/False

5. A 25 year old person with mild mental retardation can pass pre-university examination. True/False

CHAPTER - 2

Causes and Prevention

OBJECTIVES :

On completing this chapter, the psychologist will be able to :

1. List the prenatal, perinatal and postnatal causes of mental retardation.
2. Describe the measures that can be adopted to prevent mental retardation.
3. Explain the problems associated with mental retardation - epilepsy, nutritional disorders, hyperkinesis, psychiatric disturbances and multiple handicaps.

CHAPTER - 2

Causes and Prevention

CAUSES : Mental retardation is caused by a number of factors. They can be broadly grouped into prenatal, perinatal and postnatal factors.

Prenatal Causes

1. Chromosomal disorders: There are 23 pairs of chromosomes in each human cell. Every person gets half the number of chromosomes from each parent. Errors in chromosomes produce conditions with medical problems and most of these conditions cause mental retardation. The error may be in the number of chromosomes being too many or too few, or the error may be in the structure of the chromosome. One common condition due to error in the chromosome number is Down's syndrome. In this condition generally there is an extra chromosome at number 21. Because of this the persons with Down's syndrome have striking physical features such as widely set slanting eyes, depressed nasal bridge, open mouth, thick tongue, low set small ears, short limbs, short fingers, characteristic palmar creases etc.

2. Genetic disorders: Defect in the genes, transmitted from the parent to the offspring can result in certain conditions with mental retardation. The parents may not have the defect or, even if the parents have the defect, they may not manifest the condition. A number of genetic disorders are recognised. In some of these genetic disorders, there is a metabolic abnormality and a specific enzyme may be deficient or absent. This results in accumulation of specific substance in the body including the brain resulting in brain damage. This causes mental retardation. Some of the examples of such genetic disorders are phenylketonuria, mucopolysaccharidosis, lipidoses etc.

3. Infections in the mother, especially those during the first three months of pregnancy can damage the developing brain of the foetus. Some of the infections that affect the foetus are rubella (german measles), herpes and cytomegalic inclusion disease; toxoplasmosis, syphilis and tuberculosis.

4. Maternal diseases such as diabetes mellitus and high blood pressure; chronic problems in the kidneys and malnutrition in the mother can damage the growing foetus. Conditions such as hypothyroidism in the mother may lead on to the birth of a child with cretinism. Excess of thyroid in the mother (hyperthyroidism) can produce defects in the central nervous system of the growing foetus leading to mental retardation.

5. Exposure to X-ray in the early months of pregnancy, using harmful drugs especially those used in the treatment of cancer, some of the antiepileptic drugs and hormones can damage the growing foetus. Untreated fits in the mother and accidents from falls resulting in injury to the abdomen can damage the growing foetus and lead on to mental retardation.

6. Congenital defects of the central nervous system such as hydrocephalus, microcephaly and a number of defects of the brain and spinal cord are associated with mental retardation.

Perinatal Causes

The following are some of the perinatal causes of mental retardation:

1. Premature birth (being born between 28 weeks and 34 weeks) due to various causes.

2. Low birth weight babies (less than 2 kg).

3. Lack of respiration immediately after birth (the brain suffers irreversible damage if it is deprived of oxygen for 4 or 5 minutes).

4. Trauma to the head of the new born due to factors such as excessive moulding due to disproportion between foetal head and birth canal or prolonged labour or delivery by improper use of instruments.

5. Abnormal position of the foetus in the uterus.

6. Excessive coiling of umbilical cord around the neck of the foetus.

7. Abnormal position of the placenta.

8. Toxemia of pregnancy with high blood pressure and fits in the mother.

9. Haemorrhage or bleeding in the brain of the new-born due to various causes.

10. Severe jaundice in the new-born due to various causes.

11. Medicines administered to the mother such as anaesthetics and pain killers.

Postnatal Causes

1. Malnutrition in the child: Brain is vulnerable to malnutrition during 12-18 weeks of foetal life when multiplication of nerve cells is very active and from birth to the end of 2nd year of life. Inadequate intake of proteins and carbohydrates during this period predisposes to mental retardation.

2. Infections in the child such as meningitis or encephalitis (brain fever) can lead on to mental retardation.

3. Repeated fits in the child can damage the brain and lead on to mental retardation.

4. Any injury to the brain from accidents or falls can lead on to mental retardation.

PREVENTION

Having known the causes, let us see how they can be prevented. Prevention can be broadly grouped into three stages:

1. Prenatal period 2. Perinatal period 3. Post natal period

Prenatal Period

a. Periodic medical check-up for the pregnant woman is very important. The pregnant woman should have adequate nutrition. If there is history of deformities in previous deliveries or if there are repeated abortions she should be admitted to a hospital with good facilities for further investigation.

b. A pregnant woman should avoid taking drugs when medically not prescribed.

c. If a pregnant woman prefers an abortion she should get it done by a qualified doctor and not resort to local methods.

d. A pregnant woman should not be exposed to radiations such as X-rays especially in the early stages of pregnancy.

e. A pregnant woman should be immunized against diseases such as german measles and tetanus.

f. If the pregnant woman has high blood pressure or repeated fits, she must be under continuous care of a qualified doctor.

g. Hard work such as carrying heavy loads, especially in the fields, and other accident prone activity such as walking on slippery grounds, climbing on narrow stools and chairs should be avoided during pregnancy.

h. If there is a history of a child with genetic problem, the pregnant woman should be sent to a place where tests to detect such abnormalities in the foetus are available.

Perinatal Period

a. Many cases of mental retardation occur due to damage to the brain during delivery. Difficulties during the delivery of the child is one of the most common causes of mental retardation in developing countries like India since specialized attention is not always available. Proper care during delivery can help in preventing mental retardation.

b. Deliveries must be conducted by trained personnel. Complications must be detected early and a qualified doctor informed about the impending condition.

c. In case of abnormal positioning of the foetus in the uterus the delivery must be conducted by a qualified doctor.

d. In case a baby is blue when born or if the birth cry is delayed, the baby must be given oxygen immediately. It must be ensured that the baby breathes properly.

e. If any congenital abnormality is noted, the child should be sent to a specialist for management.

Postnatal Period

a. A child should be immunized against all infectious diseases such as diphtheria, polio, tetanus, measles, tuberculosis, and whooping cough.

b. If a child has high fever, the temperature should be brought down immediately by cold sponging and antipyretics.

c. If a child gets fits, drugs must be given to control them and further fits.

d. In case of epidemics especially those of brain fever (encephalitis), the child should be given adequate care and not be exposed to active cases of encephalitis. Care should be taken to see that food and water are not contaminated.

e. A child should be given adequate nutritious food, because malnutrition during developmental period is said to impair brain growth.

f. In case the child is born with a small/big head or stiff limbs he should be taken to a doctor to prevent further disabilities.

g. In case the child has gross delay in attaining the proper milestones during the first six months, the child should be tested by an expert for a thorough evaluation of developmental disabilities.

Apart from the above mentioned aspects the following factors should also be kept in mind.

a. It is desirable to avoid child bearing before the age of 18 years and after the age of 35 years.

b. It is desirable to prevent consanguinous marriages, i.e. marriages among cousins especially when there is a history of mental retardation in the family.

c. In case there is a mentally retarded person in a family, due to a hereditary cause, the parents should be advised regarding the future risk of having such children.

Associated Problems in Mental Retardation :

In addition to the deficits in intelligence and adaptive behaviour, some mentally retarded persons have medical problems or associated handicaps. Some of the most common medical problems encountered in the mentally retarded persons are epilepsy, hyperkinesis, physical handicaps, nutritional disorders and psychiatric problems such as autism, psychosis and neurotic disturbances.

Epilepsy :

About forty percent of mentally retarded persons, have convulsions of one type or the other. The convulsions vary in their frequency, duration, and type depending upon the nature of brain damage. Fits are more common in persons with severe and profound mental retardation than in those with mild or moderate mental retardation.

If a mentally retarded person is found to have fits, the following points must be taken note of:

1. A detailed history about the fits, its nature, duration, frequency, type, time of onset, premonitory symptoms, and symptoms after the fits stop, must be taken.

2. The person should be referred to a doctor immediately with all the above information and the anticonvulsant medication advised by the doctor should be strictly followed.

3. It must be emphasised on the parents that fits can be cured with medicines and regular medication is necessary and the person must be periodically sent for medical check-up.

4. Presence of fits impairs learning process and hence while training a mentally retarded person in various activities or skills, a note must be made about occurence of fits during the training process.

5. When a mentally retarded person who has epilepsy, is being considered to be placed in a job, attention must be paid to the nature of job that is being chosen. Places of work where machinery or cutting tools are used, or work related to water or high rise buildings should be avoided.

Nutritional Disorders :

1. Brain has active growth during the first trimester of pregnancy and from birth till the end of 2 years after birth.

2. Malnutrition especially during the first two years of life can seriously impair brain development.

3. Continuing the child on breast milk alone beyond 6 months and not adding supplementary food restricts the intake of proteins, fats, vitamins and minerals leading on to growth retardation.

4. Some mentally retarded children, because of their inability to chew and swallow are not given the required quantity of food and this further leads on to the delay in growth.

5. Some of the common nutritional disorders are protein calorie malnutrition, deficiency of vitamins belonging to A & B group

Hyperkinesis :

1. Some of the mentally retarded children exhibit hyperkinetic behaviour and this generally occurs in children with brain damage.

2. The features of hyperkinesis are being excessively active, distractible, having poor attention span, restlessness, lack of inhibition and poorly organised and poorly coordinated activity.

3. They are impulsive, aggressive and show fluctuations in their mood

4. Presence of hyperkinetic behaviour impairs the learning process seriously.

5. The intensity of hyperkinetic behaviour can be brought down with medication.

6. While assessing a child with hyperkinesis, careful attention should be given to the situation in which he is hyperactive. Sometimes behaviour disturbances due to provoking factors in the environment, poor parental

control or lack of stimulating environment can be confused with hyperkinesis. Detailed history and careful observation of the child is necessary in making such a differentiation.

Psychiatric Disturbances

Some of the psychiatric disturbances in mental retardation are autistic behaviour, psychotic states such as schizophrenia, mania and depression and neurotic states such as anxiety neurosis and hysterical neurosis. Features similar to autism are present in children with mental retardation where as the psychotic and neurotic states are more common with adult mentally retarded persons. Diagnosis of mental illness in mental retardation needs an expert, detailed psychiatric evaluation. In case the following symptoms are noticed in a person with mental retardation, refer him to a psychiatrist.

1. Remaining aloof for long periods of time.

2. Muttering to self and food refusal.

3. Unprovoked aggressive behaviour.

4. States of extreme elation or depression of mood.

5. Lack of sleep or disturbed sleep rhythm.

6. Sudden change in behaviour.

A number of conditions can be mistaken for mental retardation. They are given at Table-1.

TABLE - 1 : CONDITIONS MISTAKEN FOR MENTAL RETARDATION

1. Early infantile autism
2. Child with hearing impairment
3. Child with emotional disturbance
4. Cultural deprivation and lack of stimulation
5. Specific learning disabilities
6. Childhood psychosis
7. Child with visual handicap
8. Child with physical handicap

Multiple Handicaps

An individual with more than one of the four handicaps viz. physical, hearing, vision and mental, is classified under multiple handicap. Children with multiple handicaps grow, learn and develop much more slowly than any other group of children with single handicap. They need intensive training to perform even the most basic skills necessary for survival.

Cerebral Palsy with mental retardation is one of the commonest forms of multiple handicap. Cerebral Palsy is a condition characterised predominently by motor disturbances and incoordination of movements of various degrees of severity. This is a non progressive condition and occurs due to damage to certain areas in the brain.An example of such a condition is described below.

Multiple Handicap
Case History

Anita is a 8 year old child. She was brought two years back with the complaints of inability to hold objects, drooling, squint eyes and stiffness of limbs. History revealed that the child was born out of a difficult forceps delivery and her birth cry was delayed. The child attained neck control only at the age of 1 year and rolled over by 2 years. After detailed clinical examination, a diagnosis of cerebral palsy due to birth anoxia was made. On psychological assessment she was found to have an IQ of 30. The educational assessment revealed that Anita was not able to feed herself, could not express her toilet needs, could not remove or put on her clothes and was dependant on someone for all self help skills. She could recognise her parents. She could not recognise objects of everyday use.She was as a child with severe mental retardation with cerebral palsy. The parents were informed about the child's condition and counselled on the need for prolonged physiotherapy, speech therapy and intensive training in various self help skills. A management plan was developed for the child and the parents were guided on home training, in addition to the regular training in the organisation for the mentally retarded children. After 2 years of intensive training Anita is able to sit, stand with support, speak a few meaningful words, indicate her toilet needs, feed herself and remove her clothes. Her drooling has stopped and she is more cheerful than before. As parents are fully aware of the child's condition they cooperate with the professionals in training the child.

Multiply handicapped individuals constitute a heterogenous group. The differences among these individuals are greater than their similarities. Their disabilities are of various combinations and intensity. These may include extreme deficits in intellectual functioning, motor development, speech and language development, visual and auditory functioning and adaptive behaviour. Because of the multiple impairments, they look noticeably different from other individuals and their behaviour looks deviant.

It is difficult to identify the intensity of each of the handicaps in a multiply handicapped person. It is also difficult to determine the ways in which combinations of disabilities affect a person's behaviour. Accurate assessment of the various handicaps is necessary in such children before a management plan is drawn out for them.

Summary

1. There are a number of causes for mental retardation which can be grouped into prenatal, perinatal and postnatal causes. The most common causes in India in the three respective periods are Down's syndrome, difficulties during delivery and infections of the brain such as encephalitis and meningitis.

2. The various preventive measures during the various periods are described.

3. Some of the mentally retarded persons have associated handicaps or medical problems such as epilepsy, hyperkinesis, nutritional disorders or psychiatric disturbances.

Self Evaluation - II

1. Which one of the following is not a prenatal cause of mental retardation.

   a. Exposure to X-ray

   b. Birth anoxia

   c. Rubella

   d. Chromosomal abnormality

2. Which one of the following is the most common cause of mental retardation in India

   a. Diabetes in the mother

   b. Difficulties during delivery of the child

   c. Jaundice in the mother

   d. German measles in the mother

3. Mental retardation can be caused by

   a. Ill treatment of mother during pregnancy

   b. Interacting with mentally retarded persons

   c. Pregnancy after 35 years

   d. Black magic

4. List four preventive measures against mental retardation during the post-natal period

   a. _____

   b. _____

   c. _____

   d. _____

5. In a mentally retarded person with fits

   a. Fits cannot be controlled

   b. Behaviour problems are always present

   c. Frequent fits impair learning process

   d. None of the above

6. Hyperkinesis includes all of the following except

   a. Excessively active

   b. Distractibility and short attention span

   c. Vacant stare

   d. Lack of inhibition and poorly coordinated activity

7. List four conditions which can be mistaken for mental retardation

   a. _____

   b. _____

   c. _____

   d. _____

8. One of the commonest forms of multiple handicap is

   a. Down's syndrome

   b. Cerebral Palsy with mental retardation

   c. Learning disabilities

   d. Mental retardation with microcephaly

CHAPTER-3

Identification and Referral

OBJECTIVES :

On completing this chapter the psychologist will be able to:

1. List 25 normal milestones of development relevant to Indian situations.
2. Use the three screening schedules for mental retardation
3. Describe the referral procedures.

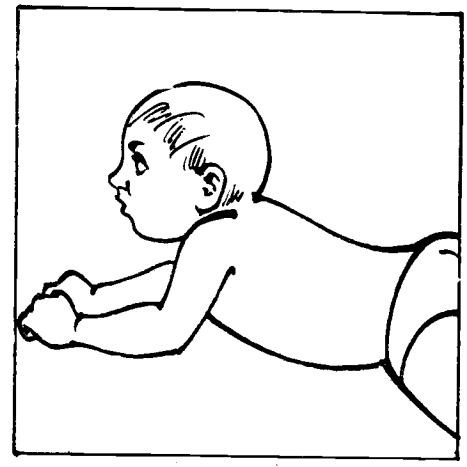
CHAPTER - 3

IDENTIFICATION AND REFERRAL

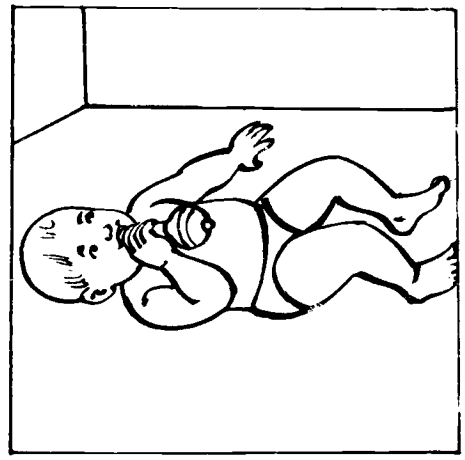
Child Development

Growth and development of children follow a pattern. Every child passes through certain steps at particular time in his life. These stages are called milestones of development. It is important to know the normal milestones of development as it helps in identifying children who have delayed development. Some of the common milestones of development and the approximate age of their attainment relevant to Indian situations are given below. It should be kept in mind that some children may skip few of the stages.

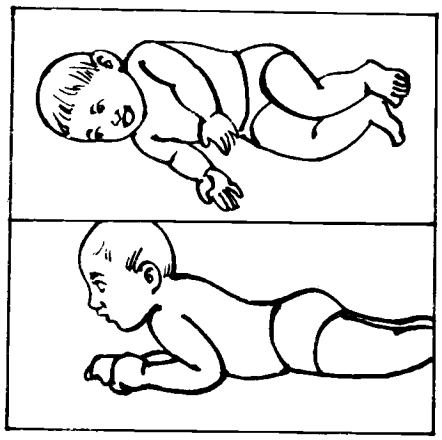
Smiles at others
4 months



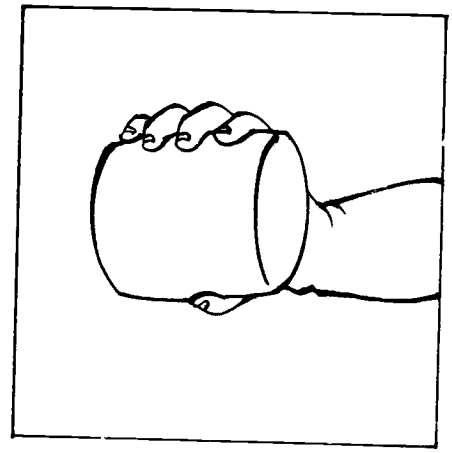
Holds head erect
4 months.



Puts objects into mouth
4 months.

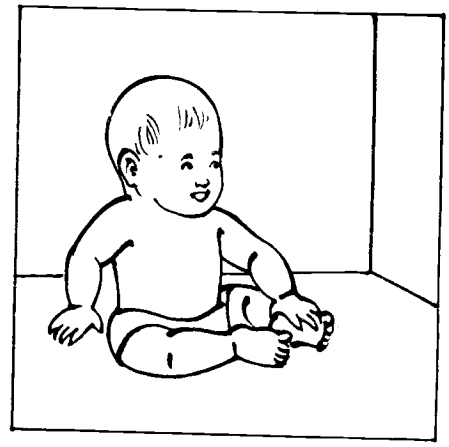


Rolls from back on to stomach
6 months



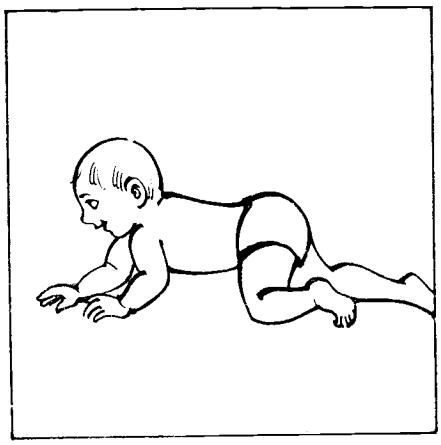
Uses whole palm to grasp
7 months

Makes sounds 'anna', 'ad dada'
7 months

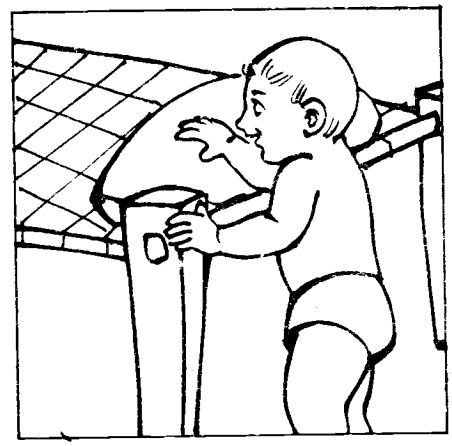


Sits without support
8 months

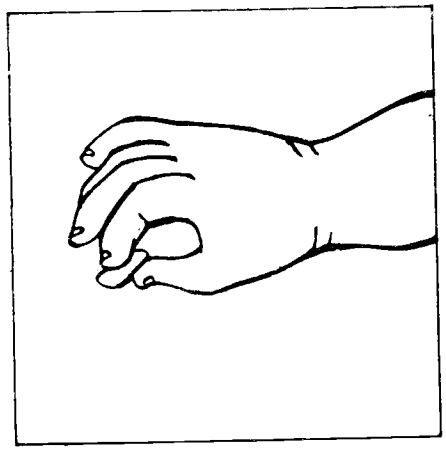
Responds to name
10 months



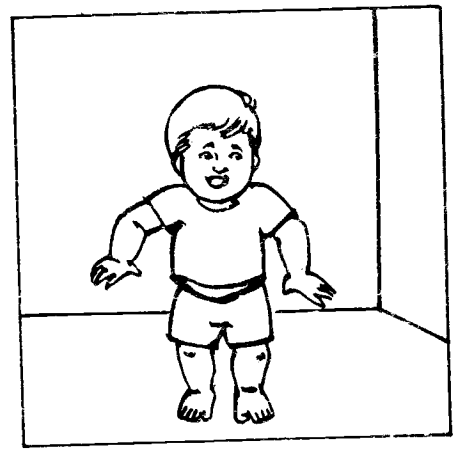
Crawls
10 months



Stands by holding on to an object 10 months



Holds an object with thumb and index finger 10 months



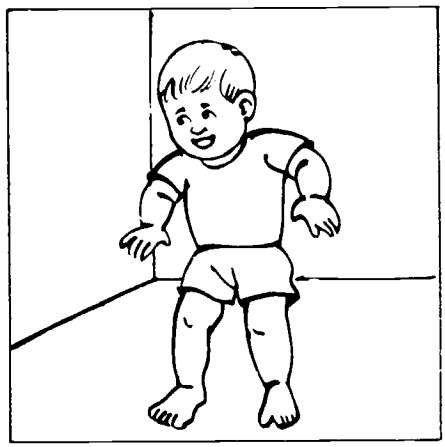
Stands without support
10 months

Says 'amma', 'akka', 'atha', meaningfully 15 months

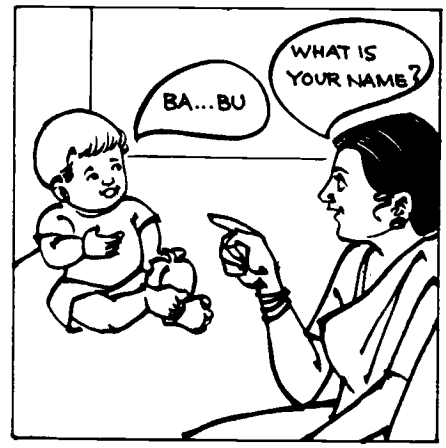
Normal Milestones of Development

S.No.	MILESTONE	AGE*
1.	Smiles at others	4 months
2.	Holds head erect	4 months
3.	Puts objects into mouth	4 months
4.	Rolls from back on to stomach	6 months
5.	Uses whole palm to grasp	7 months
6.	Makes sounds 'anna', 'ad dadda'	7 months
7.	Sits without support	8 months
8.	Responds to name	10 months
9.	Crawls	10 months
10.	Stands by holding on to an object	10 months
11.	Holds object with thumb and index finger	10 months
12.	Stands without support	10 months
13.	Says 'amma', 'akka', 'atta', meaningfully	15 months
14.	Walks without support	15 months
15.	Tells own name	18 months
16.	Drinks by self from a glass	21 months
17.	Shows body parts when named	24 months
18.	Indicates toilet needs	24 months
19.	Speaks in small sentences	30 months
20.	Unbuttons clothes	36 months
21.	Gives meaningful verbal answers to simple questions	36 months
22.	Differentiates big and small	36 months
23.	Identifies boy or girl	36 months
24.	Can button clothes	40 months
25.	Combs hair	48 months

* Based on the survey carried out by NIMH team. It should be noted that the time of attainment of a milestone may deviate from the mean age given. For details consult the appendix in the book Mental Retardation - A manual for Psychologists by NIMH.



Walks without support
15 months



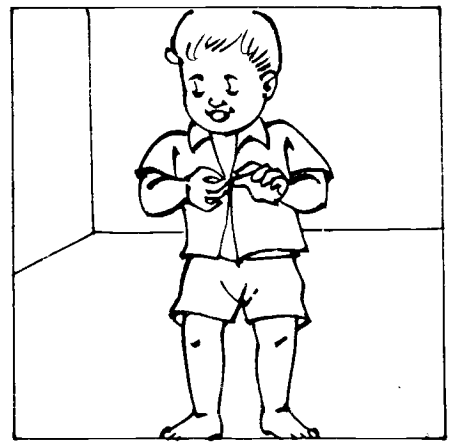
Tells own name
18 months

Drinks by self from a glass
21 months

Shows body parts when named
24 months

Indicates toilet needs
24 months

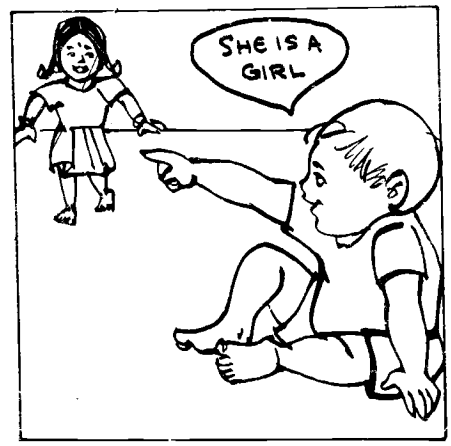
Speaks in small sentences
30 months



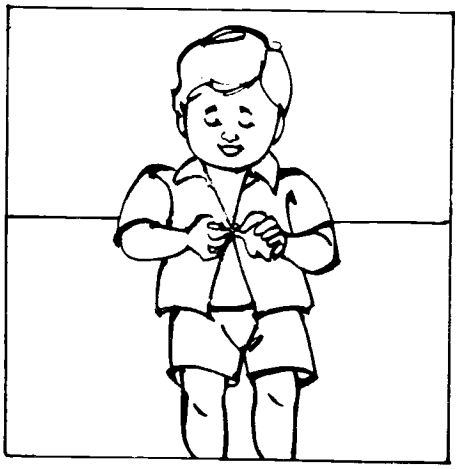
Unbuttons clothes
36 months

Gives meaningful verbal
answers to simple questions
36 months

Differentiates big and small
36 months



Identifies boy or girl
36 months



Can button clothes
40 months

Combs hair
48 months

Identification of persons with Mental Retardation

We have seen how a normal child develops. Early identification of mental retardation is made by seeing how much a child is delayed on the milestones of development. Identification of mental retardation is done by using certain questionnaires or checklists called screening schedules. Three screening schedules are given below. The first is for the children below 3 years of age. The second for those between 3-6 years of age. The third is for those aged 7 years and above. In the description of normal milestones of development, the mean age of attainment alone is given. However, the age range has to be taken into consideration while screening for developmental delays. Hence the age range is given in the screening schedule-I.

Screening Schedule No. 1 (Below 3 years)

S.NO.	ITEM	Normal age range	Milestone delay if not achieved by:
1.	Responds to name/voice	1-3 months	4th month
2.	Smiles at others	1-4 months	6th month
3.	Holds head steady	2-6 months	6th month
4.	Sits without support	5-10 months	12th month
5.	Stands without support	9-14 months	18th month
6.	Walks well	10-20 months	20th month
7.	Talks in 2-3 word sentences	16-30 months	3rd year
8.	Eats/drinks by self	2-3 years	4th year
9.	Tells his name	2-3 years	4th year
10.	Has toilet control	3-4 years	4th year
11.	Avoids simple hazards	3-4 years	4th year
	Other Factors		
12.	Has fits	Yes	No
13.	Has Physical disability	Yes	No

If the child is found to be delayed in any one of the items given from 1-11 and if the child has fits or physical disability, suspect mental retardation.

Screening Schedule No. II (3 to 6 years)

Observe the following:

1. Compared with other children, did the child have any serious delay in sitting, standing, or walking? Yes No

2. Does the child appear to have difficulty in hearing? Yes No

3. Does the child have difficulty in seeing? Yes No

4. When you tell the child to do something, does he seem to have problems in understanding what you are saying? Yes No

5. Does the child have weakness and/or stiffness in the limbs and/or difficulty in walking or moving his arms? Yes No

6. Does the child sometimes have fits, become regid, or lose consciousness? Yes No

7. Does the child have difficulty in learning to do things like other children of his age? Yes No

8. Is the child not able to speak at all? (cannot make himself understood in words/say any recognizable words) Yes No

9. Is the child's speech in any way different from normal (not clear enough to be understood by people other than his immediate family?) Yes No

10. Compared to other children of his age, does the child appear in any way backward, dull or slow? Yes No

If any of the above items is answered 'Yes', suspect mental retardation.

* Adapted from the International Pilot study of severe childhood disability - Final report - Screening for severe mental retardation in developing countries.

Screening Schedule No. III (7 years & Above)

1. Compared with other children, did the child have any serious delay in sitting, standing or walking? Yes No

2. Can the child not do things for himself like eating, dressing, bathing and grooming? Yes No

3. Does the child have difficulty in understanding when you say "do this or that"? Yes No

4. Is the child's speech not unclear? Yes No

5. Does the child have difficulty in expressing without being asked what the child has seen/heard? Yes No

6. Does the child have weakness and/or stiffness in the limbs and/or difficulty in walking or moving his arms? Yes No

7. Does the child sometimes have fits, become rigid or loss consciousness? Yes No

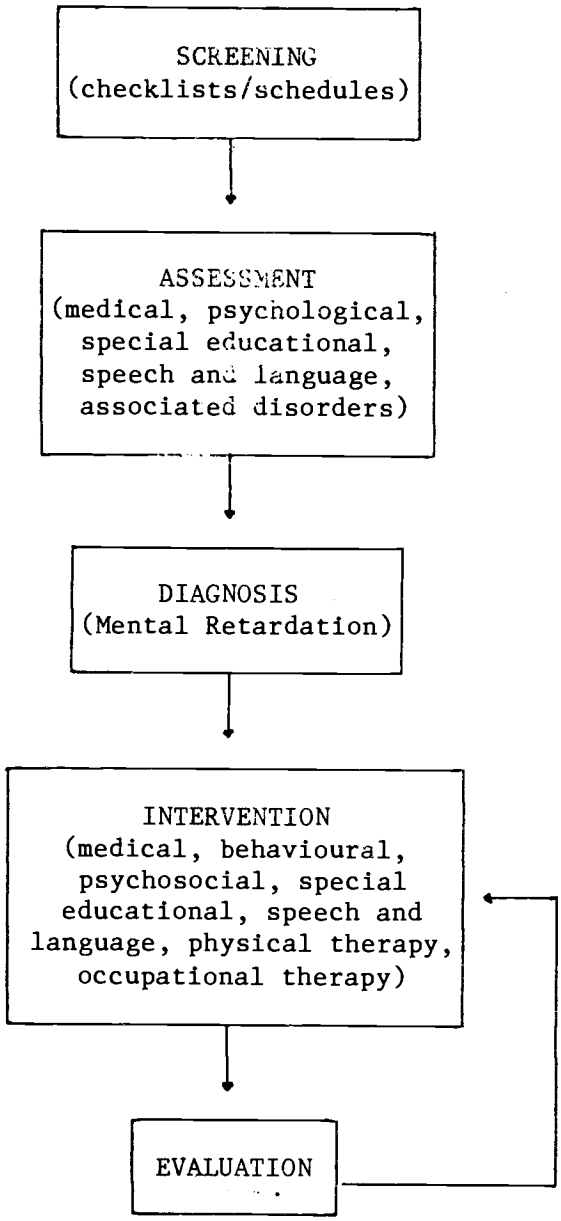
8. Compared to other children of his age, does the child appear in any way backward, dull or slow? Yes No

If any one of the above items is answered 'Yes' suspect mental retardation.

Note: In the screening schedules No.II and No.III, there are a number of questions which are over inclusive i.e. those with hearing handicap or physical handicap or epilepsy alone without mental retardation can be spotted. These two screening schedules ensure prompt identification of every single mentally retarded child. Do not worry if the questions sometimes identify persons with handicaps other than mental retardation. Such persons can be assessed later. Our chief concern is identification of mentally retarded children.

FLOW CHART:

Identification and Management.



Referrals :

Once a case is suspected, the diagnosis of mental retardation should be established by a person who has adequate training in mental retardation. The places where such a diagnosis can be made are the paediatrics/psychiatry departments of general hospitals, mental hospitals, child guidance clinics and special schools for the mentally retarded persons. In addition, the psychologist/vocational guidance counsellor at the District Rehabilitation Centre can confirm the diagnosis. The following information is needed from the parents before arriving at the diagnosis - detailed history about the health of the mother during pregnancy, details of the nature and type of delivery of the child and difficulties encountered if any, details of the health of the child after birth such as immunization and illnesses such as fever, fits, jaundice and measles; and history of similar illness in the family. After eliciting the history, a developmental assessment is done and if needed tests of intelligence are administered. The child is assessed on the assessment checklist to find out the current level of functioning. The child is examined by the medical doctor to find out whether there are any medical problems such as fits. If any drugs are necessary, they are prescribed. A management plan is then drawn out.

The management plan of the mentally retarded child depends upon the current level of the child and the associated conditions such as epilepsy, hyperkinesis, behaviour problems and sensory handicaps. The management plan varies from infant stimulation, training in daily living skills and functional academics to prevocational and vocational skills. Apart from this, help is needed in speech, locomotion, management of problematic behaviour and management of medical problems. The details about management of a mentally retarded person are given in the following chapters. In this manual, management aspects are restricted to parent counselling and guidance, creation of awareness among the public, vocational training and job placement. For details regarding intellectual assessment, skill training and behaviour modification refer to the book "Mental Retardation - A manual for Psychologists".

Summary

1. Twenty five normal milestones of development are described. These items are relevant to Indian situation and are based on a survey carried out by NIMH team.

2. Three screening schedules for the age groups of 0-3 years, 3-6 Years, and 7 Years and above are given. A detailed assessment is needed after screening.

3. The various places where suspected cases can be referred are described.

Self Evaluation - III

1. Match the following:

1. Neck control	a. 8 months	( )
2. Sitting without support	b. 24 months	( )
3. Standing without support	c. 4 months	( )
4. Indicates toilet needs	d. 10 months	( )

2. Give any three indicators of mental retardation:

   a. _____

   b. _____

   c. _____

3. Match the following:

1. Social smile	a. 6 months	( )
2. Drinking from a glass by self	b. 4 months	( )
3. Rolling over	c. 15 months	( )
4. Walking without support	d. 21 months	( )

4. Arrange the following steps in sequence:

   1. Intervention ( )

   2. Diagnosis ( )

   3. Screening for mental retardation ( )

   4. Assessing current level of functioning ( )

   5. Psychological testing ( )

5. A male child aged 8 months is brought to you with the complaints of inability to hold the head, not able to roll about and not able to fix the eyes on parents. The child cries when hungry. The mother feeds the child periodically. On examination the child is found to be in lying position, not responding to any stimuli. The doctor who examined the child has reported that clinically all the systems are normal. How will you proceed further and what advice will you give the parents.

6. A ten year old boy is brought to you with the complaints of poor scholastic performance and adament behaviour. He is studying in 5th standard. The parents report that the boy scores poor marks in class examinations since one year. He picks up quarrels with other children in the school. He shows interest in games and is found to be playing all the time. The doctor's report says that the boy is normal physically. How will you proceed further in this case.

7. A six year old girl is brought to you with the complaints of inability to talk properly, difficulty in walking, fits once a month and inability to brush teeth, bathe and dress properly. On a detailed enquiry it is found that the girl was born after a prolonged labour and all the milestones of develpoment of the girl were delayed. The doctor has prescribed medicines for fits and the physiotherapist is giving passive stretching exercises for the limbs as the limbs were found to be stiff. How will you proceed further in this case.

CHAPTER 4

Psychological Assessment

OBJECTIVES :

On completing this chapter the psychologist will be able to:

1. Explain the uses of psychological assessment.

2. Select and administer the right combination of tests for a mentally retarded person.

3. Arrive at a reliable estimate of general IQ, adaptive behaviour and individual abilities of the retarded person.

4. Write a brief psychological report after assessment.

CHAPTER 4

Psychological Assessment in Mental Retardation

The two main criteria given by the American Association of Mental Retardation (AAMR) to define and diagnose mental retardation are sub-average intellectual functioning and problems of social adaptive behaviour. Psychological testing therefore becomes crucial in diagnosing the presence and degree of mental retardation.

The intellectual functioning and adaptive behaviour of mentally retarded persons cannot be assessed by using a single test or scale. More than one test is needed for providing a reliable and fair evaluation of the mentally retarded person.

There are several problems specific to the assessment of mentally retarded perosns. They are:

1. The mentally retarded persons may have multiple sensory and motor impairments like loss of vision, hearing and deficits in gross and fine motor skills. These can substantially affect test performance and the resultant IQ scores.

2. They may have severe delay in language development affecting their expressive and receptive speech as well as all forms of communication - verbal and non-verbal. Their comprehension of test instructions may be limited.

3. The presence of behaviour problems like hyperactivity, aggressiveness, social withdrawal etc., make the child difficult to assess according to standard testing procedures.

4. Some of the mentally retarded individuals have poor attention and high distractibility and hence testing will be dificult.

5. They may be poorly motivated and they may not be cooperative.

As there is no single test applicable to all mentally retarded perosns with or without the associated problems mentioned above, the choice of the right tests becomes very important.

In addition to the diagnostic function, the uses of psychological testing in mental retardation are:-

1. It provides a profile of abilities and disabilities of the mentally retarded person which helps in training.

2. It can be used to evaluate the effects of therapeutic intervention by measuring change over time.

3. It provides prognostic information about the potentialities of the mentally retarded persons.

4. Aptitude tests, and interest inventories combined with intelligence tests are useful aids in vocational guidance.

There are three important areas of assessment in mentally retarded persons.

I. Measurement of the overall level of GENERAL INTELLECTUAL FUNCTIONING (DQ/IQ/PQ).

II. Assessment of ADAPTIVE BEHAVIOUR.

III. Detailed analysis of INDIVIDUAL ABILITIES AND DEFICITS.

I. TESTS FOR ASSESSING GENERAL INTELLEGENCE IN MENTAL RETARDATION

The most commonly used tests may be classified into three types.

1. Developmental schedules for infants and pre-school children

2. Verbal tests

3. Non-verbal and performance tests.

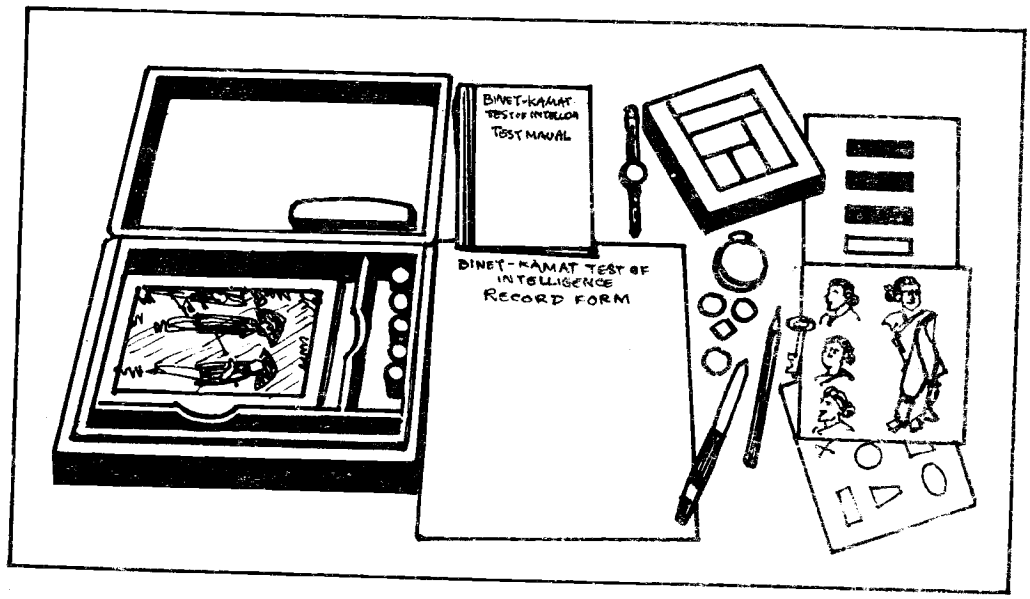
1. Developmental Schedules: These are based on observations of the development of sensory-motor activity in infants and pre-school children. The obtained developmental quotients (DQs) are known to correlate poorly with IQs measured later in life. These are most useful as screening instruments for assessing the developmental level of children upto five years of age.

One of the commonly used developmental schedules is **GESELL**'S DEVELOPMENTAL SCHEDULE (GDS). **Gesell**'s developmental schedule yields scores on four areas of development - (a) Motor behaviour, (b) Adaptive behaviour, (c) Language, and (d) Personal and social behaviour. The details of GDS are given in the appendix.

Recently a developmental screening schedule (DSS) and a developmental assessment schedule (DAS) were developed at NIMH. The NIMH-DSS is given in the appendix.

2. Verbal tests: These involve the predominant use of language and have oral items. The measure of intelligence on verbal tests are expressed in terms of IQs whereas on performance tests are expressed as Performance Quotients.

The STANFORD-BINET TEST (SBT) is a commonly used verbal test. This test had been revised and adapted to Indian conditions and is available as Binet-Kamat Test. This is an extensively used verbal test for mentally retarded persons from 3 years to 22 years. It gives a pattern analysis for seven primary abilities, namely, language, memory, conceptual thinking, reasoning, numerical reasoning, visuo-motor co-ordination and social intelligence.



BINET - KAMAT TEST MATERIALS

The verbal intelligence tests in various Indian languages like Marathi, Gujarati, Kannada and Hindi based on the SB test have been found to be valid and reliable. Most of the items are either oral or simple manipulative tasks like drawing, writing and following simple instructions.

3. Non-verbal and performance tests:- Performance tests require the subjects to express their answers in the form of drawing, gestures, activities such as arranging blocks and puzzles, matching designs and placing pictures meaningfully. Performance tests require minimal dependence on past experience and verbal instructions. They are culture fair.

Guidelines For Psychological Assessment of the Mentally Retarded Persons

1. Make a gross assessment of the sensory and motor deficits in the person.

2. Check whether the person comprehends the test instructions and has adequate speech and language for communication.

3. Use one suitable standardized test battery (Binet test or WISC-R) which gives general ability index (IQ/PQ/DQ) and a few suitable sub-tests for individual abilities such as attention,perception, spatial or motor abilties.

4. Use one standardized scale for adaptive behaviour. The most widely used is the Vineland Social Maturity Scale.

5. When assessment by standardized tests is not possible because of the problems, behaviour check lists, developmental schedules, semistructured interviews and behaviour observations may be used to arrive at the general intellectual level.

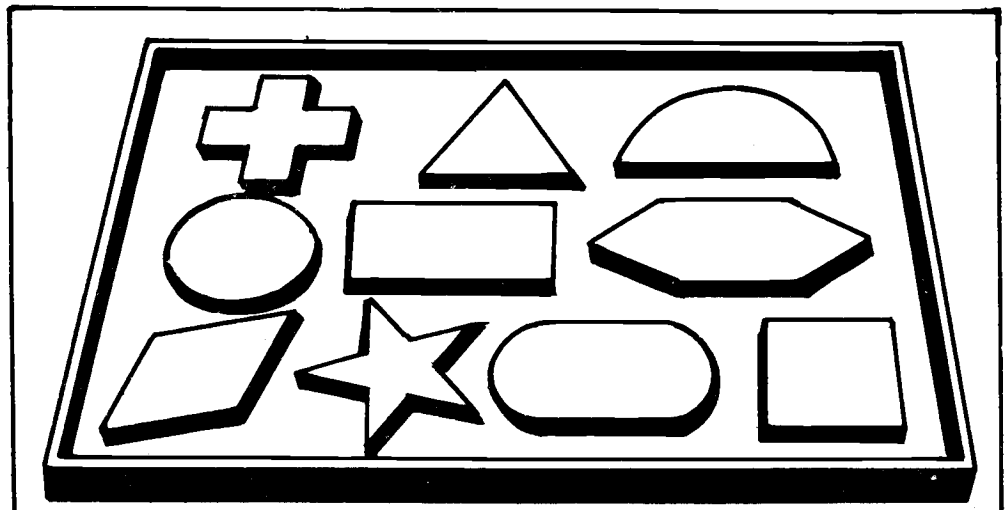
6. Start with a simple test, preferably a non-verbal test such as Seguin Form Board or Gessell's Drawing Test to put the child initially at ease.

7. Keep few colourful, sturdy and useful toys suitable for different age levels. This will help in building rapport. At times this can be used to assess the developmental level in severely retarded persons (peg boards. colour-form boards, rattles, blocks, stringing beads). Besides, some edibles like toffees and biscuits come in handy to increase motivation of non-cooperative children.

Mentally retarded persons with speech and hearing problems or limited verbal abilities, who are culturally or environmentally deprived with poor schooling opportunities would be at disadvantage on verbal tests and have to be assessed on appropriate performance or non-verbal tests.

The Seguin Form Board test (SFB) and Gessell's Drawing Test are performance tests which can be administered with ease. They serve as very quick measures of general intellegence. Alexander's Passalong test and Koh's Block Design test are performance tests which can be administered on persons with mild mental retardation. However, administered alone, the performance tests measure only certain aspects of intelligence such as motor ability, visuo motor perception or spatial abilities. Therefore, for assessment of general intelligence they should be used in combination with non-verbal tests such as Raven's Progressive Matrices.

The Seguin Form Board Test is the most commonly used performance test for measuring psychomotor and visuo-perceptual abilities for childern between four and twenty years. It is also used as a quick measure of general intelligence in children between 3 to 11 years and for mentally retarded adults. The Indian norms for the test are available. The instructions for administration and norms for SFB are given in the appendix.



SEGUIN FORM BOARD

The Developmental Screening Test (DST - Bharatraj) is a non-verbal test designed to measure the mental development of children from birth to 15 years. The information is obtained by the use of a semi-structured interview with the parents/caretakers without requiring the use of performance on any of the tasks. This is particularly useful for assessing children who are non-cooperative, those with multiple impairments or those with severe behaviour problems making the test batteries unsuitable. The details of DST are given in the appendix.

Tests Commonly Used for Mentally Retarded Persons

1. Developmental schedules.
   (a) Bayley infant scales
   (b) Gassell's developmental schedules
   (c) NIMH Developmental Assessment Schedule

2. Verbal tests
   (a) Binet Kamat Test (Kannada, Marathi)
   (b) Binet Kulshresta Test (Hindi)
   (c) Binet Shukla Test (Gujarati)
   (d) Malin's Intelligence Scale for Indian Children - Verbal Scale

3. Non-Verbal tests
   (a) Developmental Screening Test
   (b) Raven's progressive matrices - coloured

4. Performance tests
   (a) Seguin Form Board Test
   (b) Gessell's Drawing Test
   (c) Draw - A - Man Test
   (d) Malin's Intelligence Scale for Indian Children - Performance Scale
   (e) Alexander's Passalong Test
   (f) Koh's Block Design Test

5. Adaptive Behaviour Scales.
   (a) Vineland Social Maturity Scale
   (b) American Association of Mental Retardation Adaptive Behaviour Scale

6. Tests for specific abilities
   (a) Attention - Concentration, tests (Digit span, Cancellation, Knox-cube test)
   (b) Tests of perception (Bender Gestalt test, Benton visual retention test)

The Malin's Intelligence Scale for Indian Childern (MISIC) is an adaptation of Wechsler's Intelligence Scale for Children. The sub-tests of MISIC provide overall IQ and PQ and profiles of different abilities in the person. The details of the sub-tests are given in the appendix.

II. ADAPTIVE BEHAVIOUR SCALES

Adaptive behaviour is the functional ability of the individual to exercise personal independence and social responsibility. Social adaptability is the effectiveness of the individual in coping with the natual and social demands of his environment. The most commonly used scales for assessing adaptive behaviour of the mentally retarded persons are Vinel and Social Maturity Scale - (VSMS) and AAMR Adaptive Behaviour Scale.

VSMS had been adapted for Indian population. This scale is useful in the assessment of severely mentally retarded persons who cannot cope with formal testing procedures. The data is elicited by means of semi-structured interviews with the child or guardian/caretakers. VSMS gives a profile on development in eight areas viz., self help general, self help eating, self help dressing, self direction, socialization, occupation, communication and locomotion. The social age and social quotients can be computed from the person's scores.

The American Association on Mental Retardation (AAMR) Adaptive Behaviour Scale gives a quantitative description of the coping behaviour of the mentally retarded persons. The scale has two parts. The first part covers the levels of development in ten areas of functioning such as language, socialization, independence etc. The second part is concerned with maladaptive behaviour under 14 different categories; for eg. violence, antisocial behaviour etc. The scale allows a profile of skills and behaviour problems to be constructed for each individual. The details of VSMS and some of the items of AAMR adaptive behaviour scale are given in the appendix.

III. DETAILED ASSESSMENT OF SPECIFIC ABILITIES

Assessment of specific abilities in mentally retarded person helps in the planning of the training programmes. The areas in which detailed assessment is needed are gross and fine motor skills, visuo-spatial abilities, language abilities, verbal and non-verbal communication and attention span. Attention span can be tested by Knox cube imitation test, digit span and cancellation tests.

Persons with brain damage may show deficits in visuo- perceptual, spatial and visuo-motor abilities. The tests used for such persons are:

1. Bender Gestalt test
2. Benton Visual Retention test
3. Draw - A - man test (DAM)

The subtests of Stanford Binet Test, Malin's Intelligence Scale for Indian Childern and Gessell's developmental schedules give profiles for cognitive abilities where as the VSMS, and AAMR adaptive behaviour scale give subtest profiles for adaptive behaviour. The profiles from these tests also give the pattern of specific abilities and deficits in a given person.

Report Writing

Report writing is an important component of the process of psychological assessment. Some hints for writing a psychological report of a mentally retarded person are given below.

1. The psychological report must always contain essential data such as age, sex, years of schooling, and mother-tongue of the person as well as names of tests administered and date of administration.

2. The general test behaviour includes information about the level of cooperation for test taking, level of consciousness, hyperactivity, bizarre behaviours and odd mannerisms whenever significant.

3. Information about visual and auditory impairment, motor and speech deficits, attention and concentration have to be reported as they will influence the test findings.

4. The IQ score is a gross estimate of the person's general intellectual functioning. It does not indicate the marked discrepancies in skills usually seen in the mentally retarded persons. So, whenever possible, the mental age, performance quotient, social age and profile of abilities should be reported.

5. It is quite common to find a discrepancy of one to two years between the mental age and social age in the same person. Therefore, it is important that if the adaptive behaviour or social age is age appropriate with sub-average intellectual functioning or vice-versa a diagnosis of mental retardation is not made.

6. Significant observations about family interaction patterns, social adjusment of the person and stress factors have to be mentioned in the report. Any behaviour problems elicited or observed must be mentioned as they will influence training.

7. Information given in the report must be specific, for example, the exact behaviour should be reported and quantified as far as possible. The report must give specific guidelines to the teachers in the management of the mentally retarded person.

A sample of a psychological report is given in the next page.

Psychological Report

Name: Pratap
Date of Birth: 10.5.1976

Age: 11 years
Sex: Male

Education: Attended normal school for 3 years.

Language of Administration: Telugu

Regn.no.:187

Occupation: Nil

Date of testing: 12.4.'87

I. Tests Administered:-

1. Seguin Form Board Test 2. Binet Kamat Test 3. V.S.M.S. 4. Digit Span
5. - 6. -

II. General Test behaviour:-

Child was cooperative for assessment. He was mildly restless and he had to be coaxed to sit in a place.

III. Attention and concentration:-

Attention could be aroused but could not be sustained for longer than a few minutes.

IV. Comprehension of test instructions:-

Could comprehend simple test instructions.

V. Language and communication:-

Could speak in short 2 word sentences. Speech was unclear.

VI. Sensory ability:- a) Vision : Normal
b) Audition : Normal

VII. Motor abilities:- a) Gross-motor : Normal
b) Fine-motor : Normal

VIII. Self-help skills:- (name skills under a, b, c)

a) Independent - Eating, Brushing, Washing face
b) Partially dependent - Dressing, toiletting, bathing
c) Fully Dependent - Nil

IX. Problem behaviours observed / reported:-

1. Cannot sit in a place for more than few minutes
2. Eye to eye contact is poor
3. Talks to himself at times
4. Pulls objects
5. Wanders out of the house

XI. Test Findings:-

On Seguin Form Board the shortest time for 3 trials was 30 seconds (mental age - 51/2 years) On Binet Kamat test his mental age is around 6 years (basal age 4 years - terminal age 8 years). On VSMS his social age is around 7 years. Digit span test D.F. = 3. D.B = 2. He has good eye hand coordination and can write numbers 1-20 and alphabets A to Z.

XII. Profile of abilities:- (Scatter analysis)

No.	Area	Age/IQ
1.	Self help general	6 Years
2.	Self help eating	5 Years
3.	Self help dressing	5 Years
4.	Self direction	8 Years
5.	Socialization	5 Years
6.	Occupation	6 Years
7.	Communication	4 Years
8.	Locomotion	4 Years
9.		
10.		

XIII. Level of Intellectual Functioning:-

a.

1. Mental age	6 Years	IQ	: 55
2. Developmental age	-	DQ	: -
3. Performance age	5½ Years	PQ	: 50
4. Adaptive behaviour	7 Years	SQ	: 64

b.

1. Profound mental retardation
2. Severe mental retardation
3. Moderate mental retardation
4. Mild mental retardation
5. Broderline intelligence
6. Normal intelligence

XIV. SUMMARY

The child was cooperative for assessment. He was observed to be restless and could not sit in a place for more than few minutes. His eye to eye contact was poor. His attention could be aroused but could not be sustained for long. He could comprehend simple test instructions. He could speak in short sentences but the speech was unclear. He has no sensory or motor deficits. He is partially independent in self help skills. He is reported to have behaviour problems like wandering out of the house, destructiveness and talking to self. On psychological testing his mental age was around 6 years. Performance age was upto 7 years level. He falls under the category of mild mental retardation.

XV. RECOMMENDATIONS

1. Parent counselling
2. Speech and Language training
3. Behaviour modification for behaviour problems
4. Training in self help skills and cognitive skills

XVI. GUIDELINES FOR TEACHERS

The child has to be given more training in the areas of self help skills and communication. As his attention span is short his environment has to be structured in such a way that the distractors are minimised.

Name: Dr.S.N.

Signature: Sd/-

Summary

1. The intellectual functioning and adaptive behaviour in a mentally retarded person are assessed using a combination of tests and schedules.

2. Multiple sensory and motor impairments, difficulties in communication and problems such as hyperactivity, poor motivation, short attention span make it difficult to make a proper assessment of various abilities in a mentally retarded person.

3. The guidelines for psychological testing in a mentally retarded person and the common tests that are used are given.

4. Tests for assessing general intelligence, adaptive behaviour and the individual abilities and deficits are given

5. Hints on report writing after the psychological testing are given.

Self Evaluation - IV

1. What are the three types of tests used for assessing general intelligence?

   a. _____

   b. _____

   c. _____

2. The two important areas of psychological assessment in the diagnosis of mental retardation are _____ and _____

3. Developmental schedules are most useful for the age group:-

   a. 3-22 Years

   b. 5-15 Years

   c. 0-03 Years

   d. all of the above

4. The most commonly used test for assessing adaptive behaviour in mentally retarded persons is _____.

5. A gross assessment of the _____ and _____ deficits are necessary before assessment as they affect the psychological test performance.

6. Study the following statements carefully and say whether they are true or false

   a) The intellectual functions and adaptive behaviour of a mentally retarded person can be assessed by using a single test. True/False

   b) Presence of sensory and motor impairments, language delay and behaviour problems pose difficulty in the psychological assessment of mentally retarded persons. True/False

   c) While testing a mentally retarded person one should choose a complex test first and then go on for simpler tests. True/False

d) Keeping colourful toys, toffees and biscuits come in handy in establishing rapport with a mentally retarded child during a test situation. True/False

e) Seguin form board test is a verbal test. True/False

f) Vineland Social Maturity Scale is the most commonly used Adaptive behaviour scale for the mentally retarded individuals in India True/False

g) Observations about family interaction patterns should not be included in a psychological report. True/False

h) The I.Q. score is a gross estimate of the general intellectual functioning and it does not give a view of the abilities on individual test items. True/False

CHAPTER 5

Management - Skill Training

OBJECTIVES

On completing this chapter the psychologist will be able to:

1. Assess a mentally retarded child for skill training.
2. Carry out task analysis.
3. Explain individualized training programme.
4. Train a mentally retarded child in essential skills.

CHAPTER- 5

Management - Skill Training

The mentally retarded children/persons are provided appropriate services in urban areas in special school, vocational training centres, and some of the child guidance clinics in general hospitals. The special schools usually admit the moderately and mildly retarded children. In rural areas where such facilities are not available, it is essential that the village level worker is equipped with skills in the home training of the mentally retarded persons. By this, the parents learn to manage their retarded children at home and the expert guidance reaches more number of such children.

To delineate a management programme for a child it is essential that his strengths and weaknesses are found out. This is done by assessing his present level of functioning. Assessment means finding the capability of a mentally retarded child at any time to determine his placement/position/level in various skills. For example, one should first know whether a mentally retarded child can hold a pencil between his index finger and thumb before teaching him how to write. Without holding a pencil correctly, one cannot write. Therefore, assessment of the ability to grasp the pencil is necessary. Similarly one cannot expect a child to walk, if he cannot stand. The ability to stand must be known (assessed) before teaching a child the skill of walking. The level of performance of the mentally retarded child must be assessed in the following developmental areas.

1. Vision and hearing (sensory ability)
2. Gross motor and fine motor ability
3. Self care ability
4. Language ability
5. Cognitive ability
6. Social and emotional ability

Assessment should always be done in a systematic way. Assessment should be done in the same order as the development of the child. For example, a child first rolls over his stomach and then crawls. While assessing, one must first find out the ability to roll and then the ability to crawl. Thus it provides correct information to decide the need of the child i.e. whether to teach him to roll or to crawl.

The assessment should not be based on guesses or probabilities. It should be based on definite and exact facts either observed or supplied by the informers. For example, if one wants to know whether a child follows the movement of an object with the eyes, observation of the activity must be made rather than depending on the information given by the informant. While assessing the child in all areas, the child should be compared with an average normal child of the same age. Such a comparison shows how far the mentally retarded child lags behind.

The most common form of assessment of mentally retarded children is by using developmental schedules as described in the previous chapter. They provide a complete list of developmental milestones in all areas in an order. Given below is an assessment checklist which can be used to assess the current level of functioning of a child. This will be useful in assessing children from 0 to 6 years.

The person assessing the child should keep the checklist in front of him and observe if the child can do a particular activity or not. If the child does the activity 'Yes' should be circled. If not 'No' should be circled. For example, let us take activity number one, i.e. Does the child smile at others? To test this one should smile at the child or hold his chin and talk to him with a smile. Then the child should be observed and the checklist scored accordingly.

Assessment Checklist

AGE RANGE : 0-6 MONTHS

1. Does the child smile at others?	Yes	No
2. Does the child hold his head erect when placed on his abdomen?	Yes	No
3. Does the child make sounds like ta-ta-ta' 'na-na-na'?	Yes	No
4. Does the child roll from back on to stomach?	Yes	No
5. Does the child use his whole palm to grasp?	Yes	No

AGE RANGE : 7-12 MONTHS

6. Does the child respond to name?	Yes	No
7. Does the child sit without support?	Yes	No

8. Does the child crawl on his stomach?	Yes	No
9. Does the child stand by holding on to an object?	Yes	No
10. Does the child pick up things with his thumb and his index finger?	Yes	NO

AGE RANGE : 1-2 YEARS

11. Does the child stand without support?	Yes	No
12. Does the child say ´amma', ´atta', ´tata'?	Yes	No
13. Does the child walk without support?	Yes	No
14. Does the child drink by himself from a glass or a cup?	Yes	No
15. Does the child show body parts when asked?	Yes	No
16. Can he greet others when reminded?	Yes	No

AGE RANGE : 2-3 YEARS

17. Does the child jump with both the feet together?	Yes	No
18. Does the child give verbal answers to simple questions?	Yes	No

AGE RANGE : 4-5 YEARS

30. Can the child copy patterns such as round, straight or slanting lines?	Yes	No
31. Can the child button his clothes?	Yes	No
32. Can the child comb his hair without help?	Yes	No
33. Can the child wash his face without assistance?	Yes	No
34. Can the child associate the time of the day with an activity?	Yes	No
35. Can the child count upto 10 by rote?	Yes	No
36. Can the child name the colour of the objects when shown?	Yes	No

AGE RANGE : 5-6 YEARS

37. Can the child follow two unrelated instructions?	Yes	No
38. Does the child name the days of the week in order?	Yes	No
39. Can the child read simple words?	Yes	No
40. Can the child count meaningfully upto 10?	Yes	No

Once a mentally retarded child/person's current level of functioning is established, a programme appropriate for him/her must be developed. In other words, Individualized Educational Programming, popularly known as I.E.P.must be developed in order to provide appropriate education and training for the mentally retarded person. The development of I.E.P. depends upon the needs of each mentally retarded child/person. Specific objectives for instructing the child and the teaching plan must be developed. A well planned I.E.P. should have information on the programming for the child by various specialists who should provide services for the child. For instance, the I.E.P. must contain programme in physiotherapy, occupational therapy, behaviour management, and speech therapy in addition to special education, if the child requires those services. Hence, the I.E.P. is a team effort of the plan made for a child.

The components of the I.E.P. are 1. current level of functioning of the child in specific skills, 2. annual goals, 3. short term objectives, 4. methods of training, 5. materials required to train, 6. person(s) who would train, 7. duration, 8. terminal behaviour and 9. evaluation for further programme planning.

Such a programme is very much essential in teaching the retarded children because no two retarded children can be taught the same programme. Each child differs from the other with regard to his/her needs, strengths and weaknesses and hence the programme developed should be tailored to suit the needs of each child. This should take into account his/her nature, needs and potentials, family background, socio-economic status, area of residence, and so on. A sample of I.E.P. is given in pages 65, 66 and 67

In the following pages, various activities for stimulating and training a mentally retarded person are given. It should be noted that for teaching each activity/skill a number of methods are given. One or more methods given may be adopted to train the child. Once a particular method of teaching a specific skill is selected, the skill must be broken down into small sequential steps. This is called Task Analysis. An example of Task Analysis is given in page **69.**

Training a mentally retarded child/person in the skills may not be easy. Some of the hints for effective teaching are given below. For detailed information on the methods to increase desirable behaviour refer to the chapter on Behaviour Modification.

Hints for successful skill training

- Divide each training activity into small steps and demonstrate.
- Give the mentally retarded person repeated training in each activity.
- Give the training regularly and systematically. Do not let parents get impatient.

NATIONAL INSTITUTE FOR THE MENTALLY HANDICAPPED SECUNDERABAD

Individualized Training Programme:

PART - A

1.	Name	: Ms Nalini
2.	Date of birth (age)	: 15..6.1980 (8 yr, 6m)
3.	Sex	: Female
4.	Address	: D/o Sri Raghuramaiah, 12-5-60, Chilakalaguda, Hyderabad.
5.	Mother tongue/language(s) spoken by the MR person	: : Telugu
6.	Registration No	: 16/86
7.	Class and Roll No.	: B, 5
8.	Date of filling ITP	: 3.1.1989
9.	ITP No.	: 1
10.	Significant information about the MR person	: Moderately retarded child, speaks in : monosyllables, communicates meaningfully through gestures, left handed, attention can be aroused and sustained for 10-12 minutes.
11.	Associated conditions and referrals if any	: : Seizures.
12.	Goal	: 1. To be independent in feeding, toiletting, dressing and brushing. 2. To be able to communicate in 2-3 word sentences. 3. To identify and use familiar objects.
13.	Staff responsible	: Ms. K.Radhika.

PART-B

ITP NO: 1
Date of Programming: 3.1.1989.
Date of EVALUATION :
Staff Responsible : Ms.K.Radhika.

SKILL: Toiletting.

Present Level/ Baseline

Does not indicate toilet needs.
Cries after wetting.

Objectives

Nalini will indicate the toilet need and use the toilet for urinating 8/10 times in a day after one month of training.

Materials needed

Any eatables or other materials Nalini likes for reward.

Procedure :

1. Maintain a chart of frequency of urination for one week. Choose a time when the child is not ill. Note exactly the time of her urination.

2. On seeing the chart maintained for a week one could see the approximate timings on which she normally passes urine.

3. Three to five minutes before the expected time take her to the toilet, saying in your language to pass urine. Donot be disheartened if she does not cooperate initially. Continue the efforts. When she does pass, appreciate her.

4. During the day, touch her panty once in a while and if she has not wet say 'good girl you are dry' and appreciate.

Evaluation

Remarks :

Signature of Staff

- Start the training with what the child already knows and then proceed to the skill that needs to be trained. By this the child will have a feeling of success and achievement.

- Reward his effort, even if the child attains near success by appreciation or with something that he likes.

- Reduce the reward gradually as he masters a skill and take up another skill for training.

- Use the training materials which are appropriate, attractive and locally available.

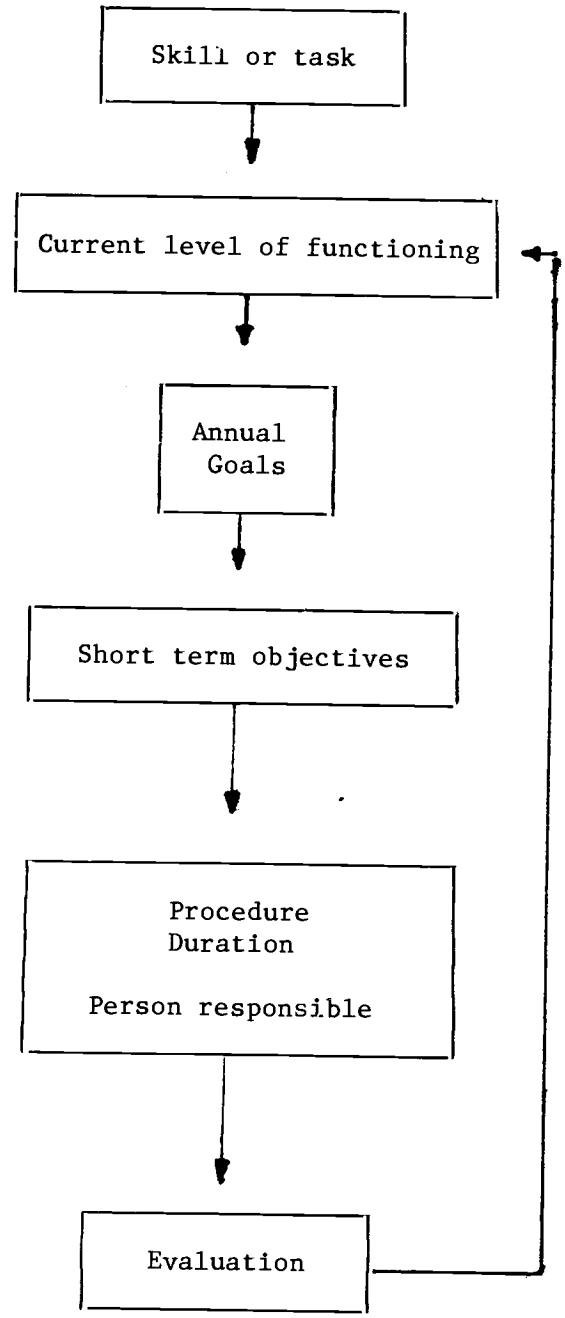
- Remember, children learn better from children of the same age. Therefore, try and involve normal children of the same age in training the mentally retarded child, after orienting the normal child appropriately.

- Remember, there is no age limit for training a mentally retarded person.

- Assess the child periodically, preferably once in four or six months.

- Remember, a mentally retarded child learns very slowly. Tell the parents not to be dejected at the slow progress, NOR FEEL THREATENED BY THE CHILD'S FAILURE.

PROCESS OF INDIVIDUALIZED EDUCATIONAL PROGRAMME



Task Analysis

To teach any skill to a mentally retarded child the skills should be broken down into small, sequential steps. This process of breaking down the skill into small teaching steps is called task analysis. This involves isolating, describing and sequencing the sub-tasks which, when mastered will enable the child to perform the skill independently.

An example of such a task analysis is given below.

Skill : To brush teeth independently.

1. Remove the cap of the tooth powder tin.
2. Put the powder in left hand.
3. Replace the cap of the tin.
4. Keep the tin on the floor.
5. Fold the fingers of the right hand except the index finger.
6. Keep the right index finger into the powder.
7. Rub the front teeth with the finger.
8. Keep the finger in the powder.
9. Rub the teeth on the lower left side.
10. Keep the finger in the powder.
11. Rub the teeth on the upper left side.
12. Keep the finger in the powder.
13. Rub the teeth on the lower right side.
14. Keep the finger in the powder.
15. Rub the teeth on the upper right side.
16. Repeat the above steps several times.
17. Put water in the mouth.
18. Gargle and spit it out. Repeat step nos. 17 and 18 thrice.
19. Wash the face.
20. Take the towel.
21. Wipe the hands.
22. Wipe the face.
23. Keep the towel back in its place.

In the following pages, the activities for training a mentally retarded child in various areas are given. One or two such activities may be taken at a time. The sketches alongside the activities will help you in training the child.

LIST OF ACTIVITIES:

Activity - 1

To make the child smile in response to facial expression of others.

- Bend your head slightly above the child's face to catch his look, talk to him and smile.

- Talk and smile when you are feeding him, giving bath to him, dressing him, and so on.

- Respond by smiling whenever he smiles.

- Smile at him whenever you pick him up and play with him.

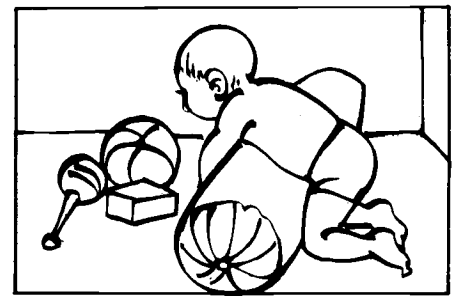
Activity - 2

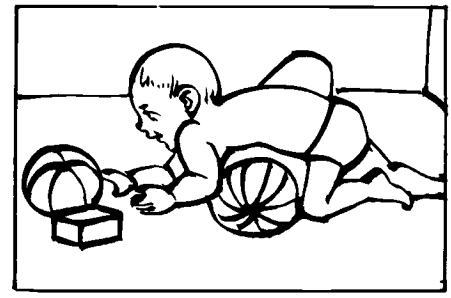
To make the child hold his head erect when placed on his abdomen on a flat surface.

Materials - A Rattle / Toy, Cylindrical Pillow.

- Keep a pillow under his arms and chest (as shown in the picture). Hold a colourful toy in front of the child and let him look at it.

- Place the child on his stomach without the pillow. Rest his elbows on the floor. Physically guide the child to lift his hand and look up. Gradually reduce support.





Activity - 3

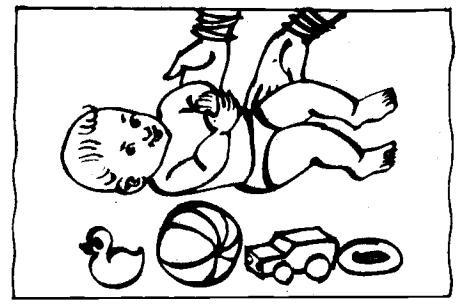
To make the child say : ´Na-na', ´da-da', ´ya-ya',

Materials - Sugar syrup, Honey,

- Keep the child in such a position that he can look at your face. Make sounds like ´na-na' ´da-da' and so on repeatedly. Let him try to reproduce the sounds.

- When the child responds to your talking by vocalizing, carefully apply sugar syrup/honey behind his upper teeth. The child would start licking and in the process would make sounds like ´da-da-da' and na-na-na'.

3



Activity - 4

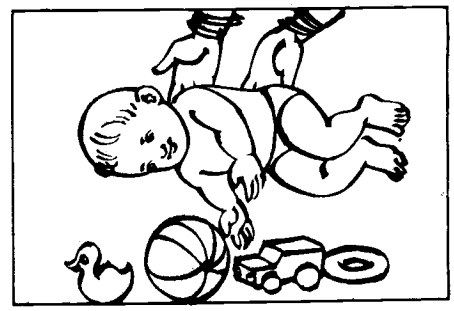
To make the child roll from his back on to the stomach.

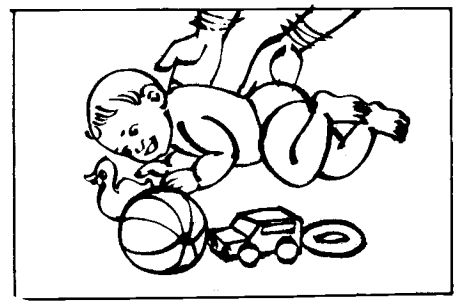
Materials - Colourful toys, Pillows.

- Show colourful toys to attract him on his side just above his head.

- When the child is on his back hold his leg and hand of the same side and gently roll him over. Reduce the help gradually.

- Make him lie sideways. Keep a pillow to support him at the back and gently push the pillow so that he turns and reaches for the toys.



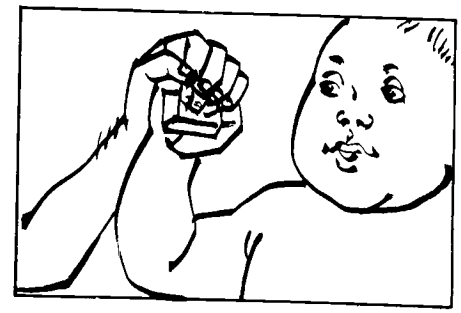


Activity - 5

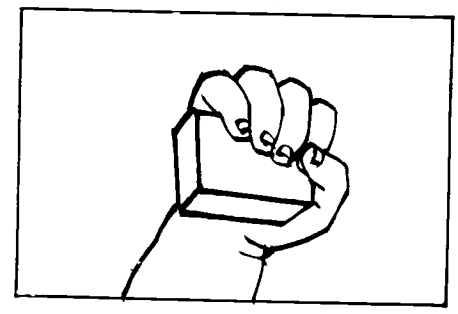
To make the child use his whole palm to grasp.

Materials - A toy or a biscuit to fit in child's palm.
(The child can be lying on his back or sitting in your lap.)

- Place a toy/biscuit in the child's hand. Tell him to hold it. If the grip is not tight, hold his fist with your hand. Slowly release the pressure of your hand and finally, take away your hand.



- Place maida paste at the lower part of the child's palm. Place a small toy in the centre of his palm and fold his fingers so that his fingers touch the paste. He can hold a toy for a few seconds because the fingers get stuck to the lower part of the palm.

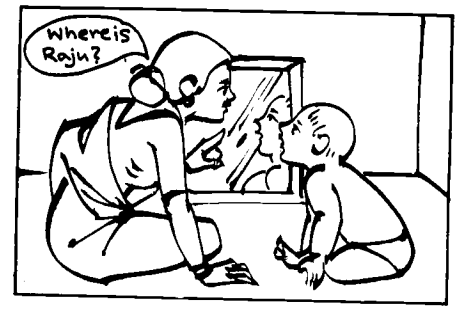


Activity - 6

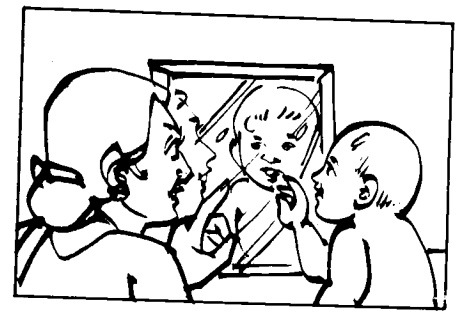
To make the child respond to his name.

Material - A mirror.

- Call the child by name during various activities such as feeding him, bathing him, changing of his clothes and playing with him.



- Show him his image in the mirror and say his name. Ask "Where is .....(name of the child)".
- Physically guide his hand to his chest and say "here is .....(name)" while looking into the mirror.



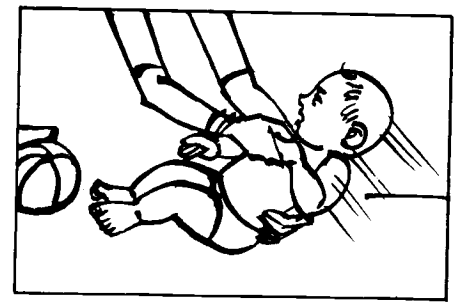
- Always use a single name and encourage the family members to call him by that name while talking to him.

Activity - 7

To make the child sit without support.

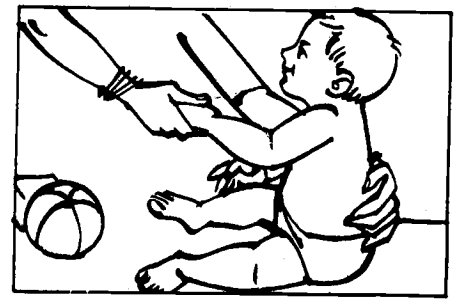
Materials - Pillow and toys, Cardboard box.

(Select the activity depending upon the requirement of the child)

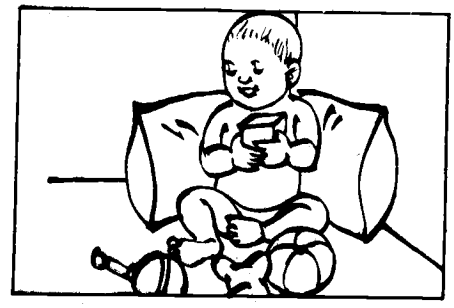


- Place the child on his back and hold his fingers tight and pull him upto sitting position. See that his legs are stretched and slightly spread apart to get the balance. Support the back with your palm and slowly reduce the support. Keep toys in front of the child so that the child is busy with them.

7-B

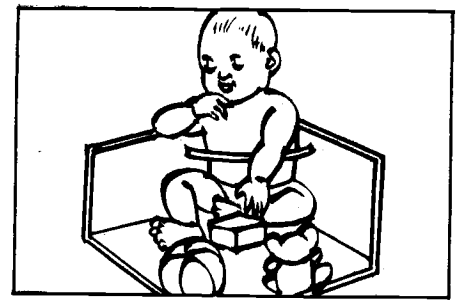


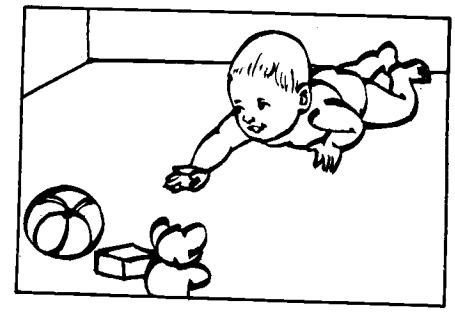
- Keep the pillows at the back of the child to support him in sitting position. Gradually remove pillows one by one so that the child sits without the support. Always keep some toys in front of the child and/or see that some other child plays with the child.



- In a cardboard box make the child sit in a corner. The height of the box should reach the shoulder of the child while sitting. Gradually reduce this height to under arms, to the waist and finally remove the box.

- Make the child sit in the corner of a room. Keep colourful toys in front of him. keep talking to him.

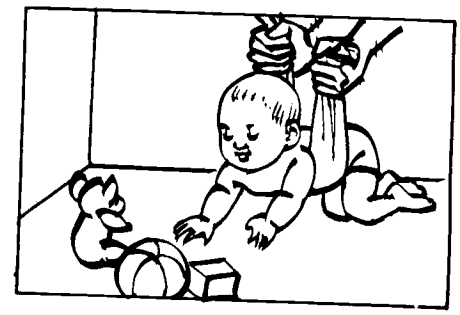




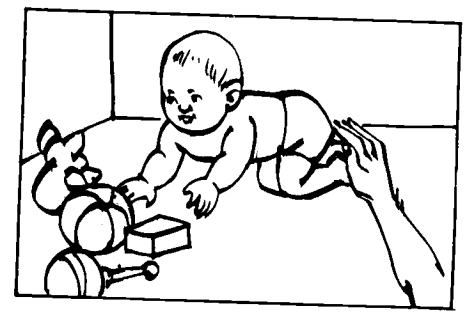
Activity - 8

To make the child crawl.

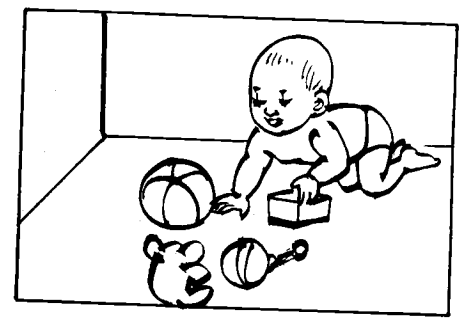
Materials - Toys, Eatables.



- Place the child on his stomach and place some toys few inches away from his reach. Get his attention by tapping the toy on the floor and tell him to take it. Gradually increase the distance between the toy/eatable and the child.



- Make the child rest his palm and knees on the floor. Run a towel under the child's chest and abdomen. Lift the ends of the towel so that the child's trunk is raised. Make him crawl towards the toys in front of him.



- Support the sole of his foot with your palm. He will push against your palm to move forward. Gradually withdraw the support.

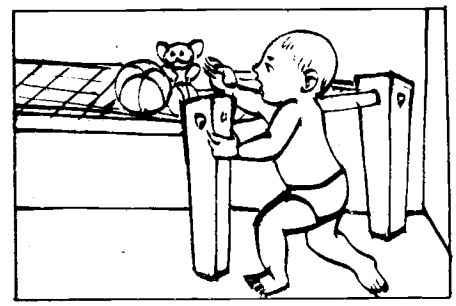
Activity - 9

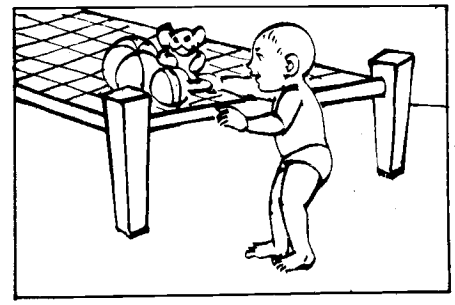
To make the child stand by holding on to an object.

Materials - Toys, Table / Cot

- Show a toy to the child and place the toy on a low table/cot while the child watches. Encourage him to hold the table top or cot and pull himself up to reach the toy. Push at the hip to make the child stand.

- Make sure that the child is able to place both his feet on the ground by holding him under the arms and making him stand.





Activity - 10

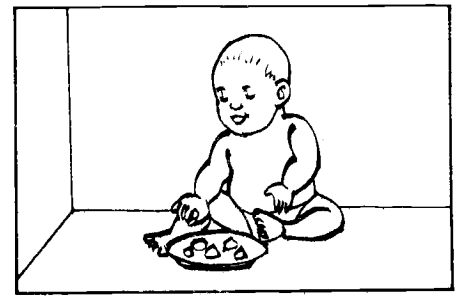
To make the child pick up an object with his thumb and his index finger.

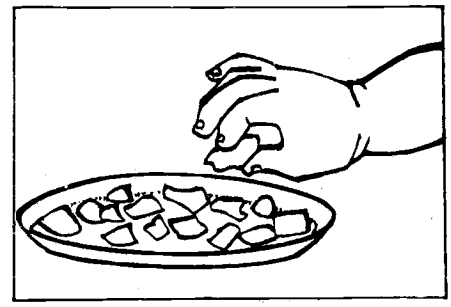
Materials - Pieces of chapati, Fluffed rice, Gum.

- Give small chapati pieces to the child. Encourage him to pick them up with his thumb and his index finger and let him eat.

- Place small bits of eatables on a plate and physically help him to pick up a piece with his thumb and his index finger and eat. Gradually reduce the help.

- Place some honey or a sticky edible on the child's thumb and his index finger. Press them a couple of times. When the gum dries the child needs to make an effort to pull the fingers apart. It becomes a play and the child keeps trying it. If needed, help him physically.

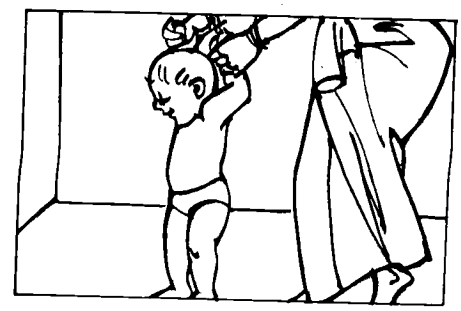


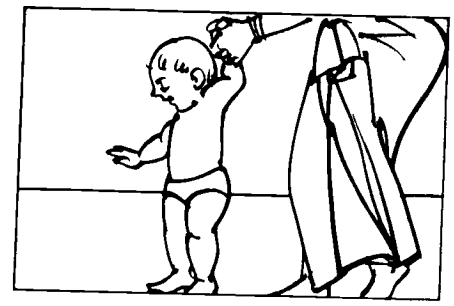


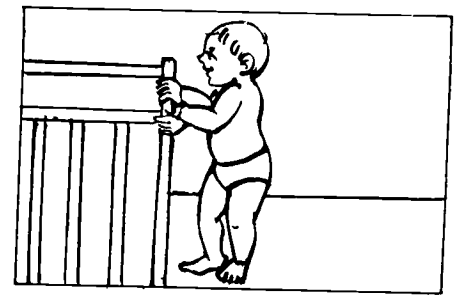
Activity - 11

To make the child stand without support.

- Have the child hold your fingers with both his hands. Pull him to standing position and keep talking to him as you do this. Slowly withdraw one hand and let him hold with only one hand and stand. Gradually withdraw the second hand also. Let him stand. See that his feet are placed apart to balance when you withdraw total help.
- A wall, a stool or any such support can also be used to train the child to stand.





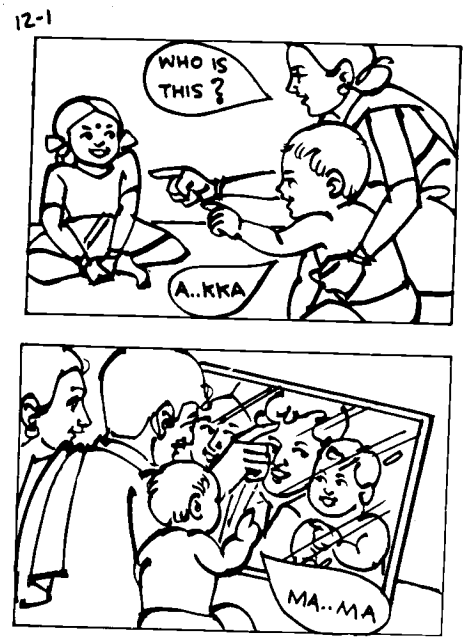


Activity - 12

To make the child say 'amma', 'akka', 'atha'.
(meaningful terms, kinship terms)

Materials - Photographs of relatives,

- Point to the child's mother, brother or sister and ask - "who is this?" Give the answer and let the child imitate. Reward the child even if the child makes an attempt or approximation. In a group of persons ask the child "where is .....?" and point to that person and say "here is ....."
- Show a photograph of his nearest relative with whom he spends most of the time and let the child point at that person. Give the name of the person (akka/atha/amma-mamma), and let the child repeat the name.
- Let a relative stand in front of the child. Let the child touch/point at that person and say the name of the relative.

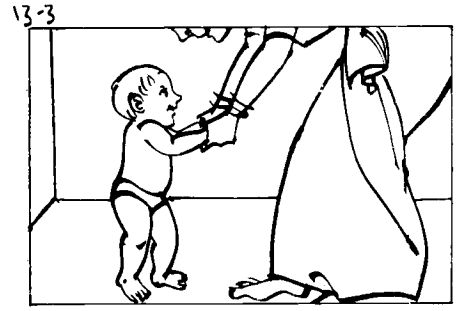


Activity - 13

To make the child walk without help. Materials - A three wheeled cart (walker), Toys,

- Stand behind the child and support the child at the shoulders. Place your toes at the heels of the child. Push them alternately so that he walks forward. Gradually reduce the help. Start with short distances and gradually increase the distance.

- Make the child stand with the support of a three wheeler. Pull the three wheeler forward slowly and let the child move forward. After the child gains confidence slowly reduce your help and let the child push.

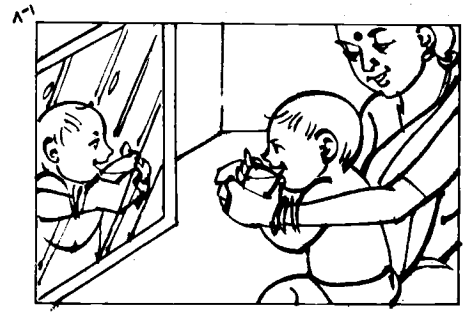


- Hold the child's hands and stand in front of him. While you walk backwards, let the child walk forward.

Activity - 14

To make the child drink by himself from a glass.

Materials - A glass, A mirror and something to drink.



- Have a small amount of liquid in a cup/glass. Show the child what he is going to drink.
- Sit behind the child in front of mirror and physically help him to drink. When the child gains control increase the amount of liquid. Gradually reduce the help.
- To make the child learn faster, you also drink from a glass and let the child imitate you.

Activity - 15

To make the child show his body parts.

Materials - A mirror, A doll, Pictures.

- Name a part of the child's body while pointing to it. Ask the child to show it after you do. If the child speaks, let him also say the name of that part. Otherwise, let him show that part of the body which you say. Gradually introduce the names of the other parts of the body also.

- Let him point to the parts of the body on the doll like the doll's legs, the doll's hands and the doll's head. Later let him show the doll's nose, doll's eyes, the doll's ears, etc. If he needs help, place his finger on that part which you want him to show and later let him try by himself.

- Let him stand in front of a mirror. Make him touch his head/nose on his reflection. Whenever necessary give help to touch that part and then let him try.

Activity - 16

To make the child greet others when reminded.

- Every morning when the child wakes up and every night when the child goes to bed greet him. Insist on the child greeting you back.

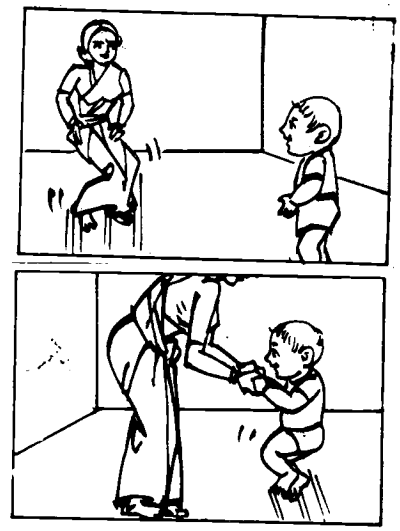
- When there are visitor in the house, have the child with you when you greet the visitor. Have the child greet the visitor.

- Always appreciate the child for greeting appropriately.

Activity - 17

To make the child jump with both feet together.

- Hold both hands of the child and jump. Ask the child to imitate you.
- Draw circles of one foot radius on the floor adjacent to each other, You jump from one circle to the other with both feet. Ask the child to imitate you.

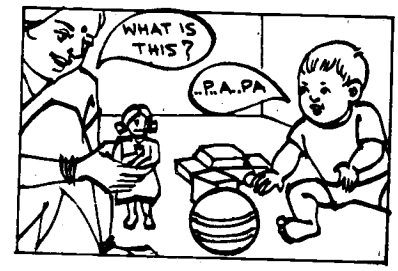


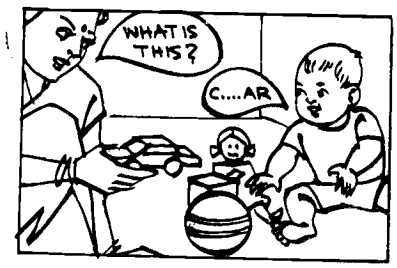
Activity - 18

To make the child give verbal answers to simple questions.

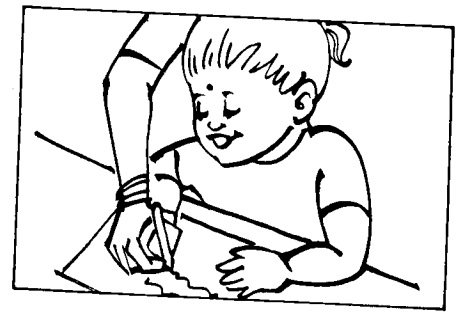
Materials - Action pictures, Varieties of toys.

- While the child is eating keep talking to him (now you will eat roti, and then vegetable) and in between ask him simple questions like what are you eating now, or what is in your hand? Let him answer. If he fails, let his sister, brother or a peer answer and let him imitate/repeat the answer.
- Show him big action pictures and ask the child what the person in the picture is doing. Help him to give the answer. Gradually reduce the help.
- Make a statement like 'I want to buy a sweet'. Ask the child' what do you want to do?'. Let the child say' buy a sweet'. Gradually reduce the help.
- Keep a lot of toys and pick up one toy. Ask the child, what did I pick up?' If the child says correctly reward him. Pick up another toy and ask the child the same question. Now let him answer. Make it a game. Let him ask questions tions and let somebody else answer. Later let him answer somebody else's questions. Make it a point to maintain conversation with the child.





Activity - 19

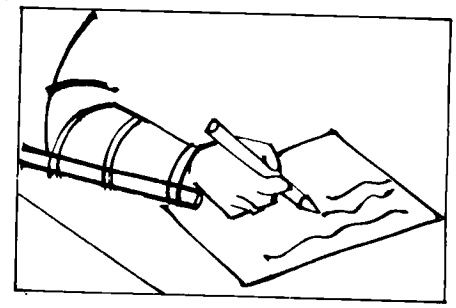


To make the child hold a pencil properly.

Materials - A pencil, Splints, A tape, Rubber bands.

- Place the pencil in the correct position in the child's hand. Make sure he rests his wrist on the writing surface. If he does not rest his wrist, place a small splint from wrist to elbow on the inner side of his fore arm and tie it loosely at the wrist and upper part of his forearm.

19-B



- Hold the child's hands and guide him to scribble.

- To help the child to hold appropriately a rubber band may be fixed one inch above the tip of the pencil.

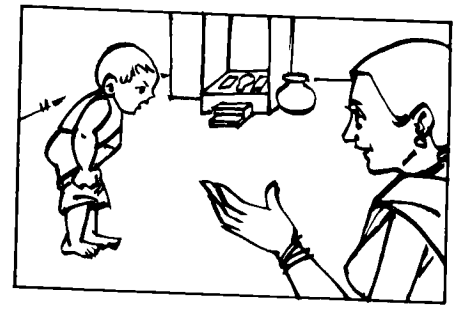
Activity - 20

To make the child indicate his toilet needs.*

20-A

- Before starting the training, note and record each time he urinates or has bowel movements for at least one week. Using this record as reference, take him to the toilet 3 to 5 minutes before the noted time. Use one word always (like:sussu) whenever he is made to sit in the toilet.

20-B



- Reward whenever he uses the toilet.

* In the rural areas toilets may not be present and open ground may be used as toilets. In such instances take the child to a fixed place to make him urinate or ease himself.

Activity - 21

To make the child tell his name.

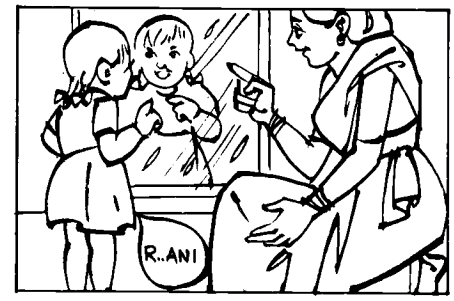
- Give the child one name and always call him with that name whenever possible.

- Stand in front of a mirror with the child. Point at the child in the mirror and ask him; ℞who is this? Say his name and let him repeat it.

- Say "My name is ..... and your name is ..... ". Let the child say "My name is ....." (prompt his name if necessary). Withdraw total help and give clues by whispering his name, saying the first syllable or making lip movements suggesting his name.

21-A

21-B



Activity - 22

To make the child speak in small sentences.

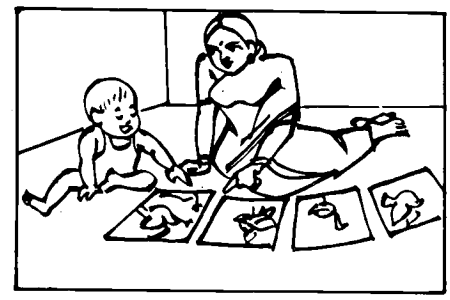
Materials - Pictures of a story in sequence, action pictures.

- Tell the child a story with picture. Arrange the pictures in a sequence and ask the child to narrate the story in small sentences.

- Show him a picture poster. Ask the child to describe the actions in the poster in simple sentences.

- Act out a simple action such as eating. Let the child say in words what he/she has seen.

22



Activity - 23

To make the child match colours.

Materials - Beads, Chips and Objects of different colours.

- Mix objects of two colours, eg. red and green. Objects can be coloured chips, beads or cardboard cut outs. Take out a red one and keep it separately. Take another red object and keep it with the first one as the child watches you. Now tell him to take out all the red ones and keep them with the red objects you had separated. Each time say 'red' as the child separates them.

- Add other colours when the child is able to separate and match two colours.

Activity - 24

To make the child brush his teeth.

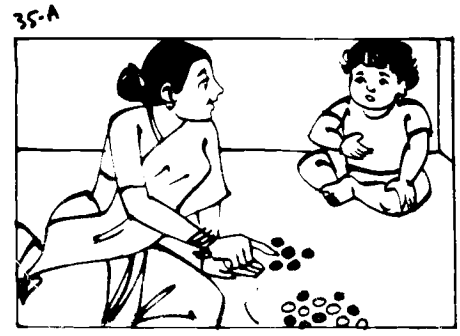
Materials - Tooth powder, Mirror, A bucket of water, A mug.

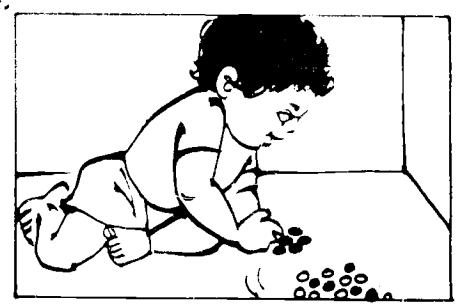
- Brush your teeth at the same time when you want the child to brush.

- Show him how you brush and let him imitate.

- Have a mirror in front and let the child see himself while brushing.

- If need be, initially guide him physically and gradually reduce the help and give only verbal directions. When he masters the skill reduce the directions also.





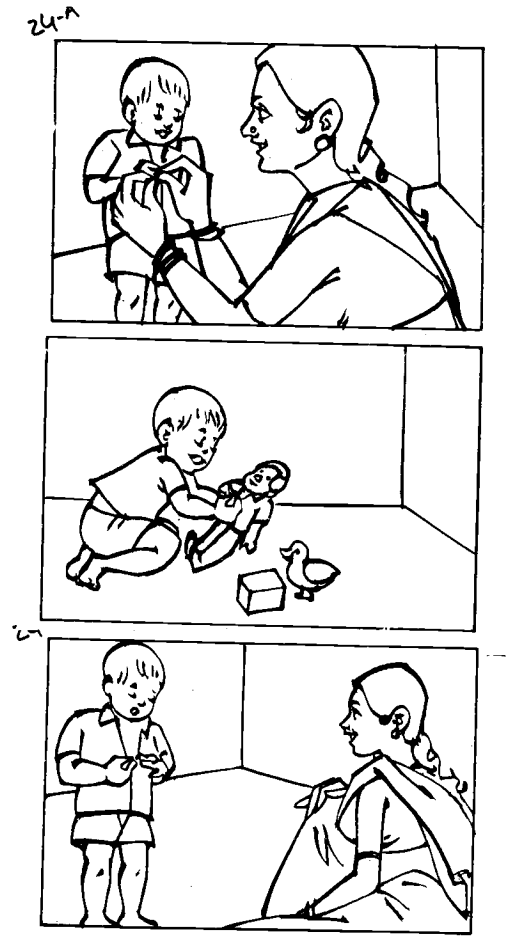
Activity - 25

To make the child unbutton his clothes.

Materials - Clothings with buttons and appropriate holes,A doll.

- Make the child unbutton by holding his hands. Then partially push the button out of the hole and let the child push it out completely.
- Wrap his favourite toy in a cloth and button it. Ask him to unbutton the packet and take his toy. Initially, assist him and gradually let him do it himself.

- Let the child take a doll for sand play and after the play, tell that both the child and the doll are dirty and that they must bathe. Tell the child to undress the doll so that it is ready for a bath. Help the child if necessary.



Activity - 26

To Make the child point to common objects by their use.

Materials - Balls, Spoons, Glasses, Pictures of familiar objects.

- Place familiar objects such as a spoon, a ball, a doll, a glass etc., in front of the child. Show and name the item and ask the child to point to it. Praise the child when he does it.

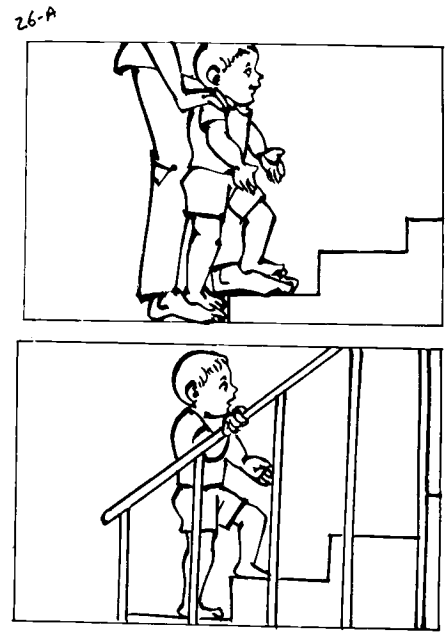
- Paste pictures of some items on a sheet of paper. Name and ask the child to point to them one by one. Correct the errors and appreciate the correct response.

Activity - 27

To make the child walk up and down the stairs on alternate feet.

- Stand behind the child and place his feet on your feet. Hold him at the shoulder and walk up and down the stairs. Keep talking to him on what is being done. For example "Let us lift one leg and put it on the lower step. Now let us lift the other leg and put it on the next step" and so on.

- Let him hold the railing with one hand and you hold the other hand and verbally direct him to place his legs alternately on the steps. First teach him climbing up the stairs and then climbing down the stairs. Now let him hold the railing. Climb beside him without holding his hand, and finally let him climb up or down independently.

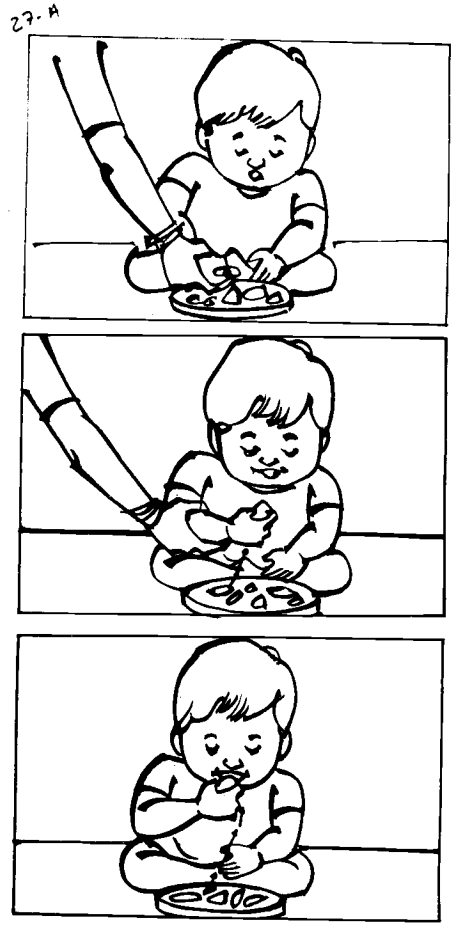


Activity - 28

- To make child eat by himself.
Materials - Plate, Idli, Chapati, Dosa and such items

- Start the training with solid food items such as idly, dosa, chapati and so on. Put a few small pieces of food in a plate and physically guide the child to pick up a piece and eat it. Gradually reduce the physical help to verbal instructions.

- When he masters eating on his own, introduce food items such as rice and dal. Initially keep small balls of the food in the plate and let the child pick up a piece and eat it. Vegetable pieces should be prepared in size big enough to be picked up by the child and eaten.



Activity - 29

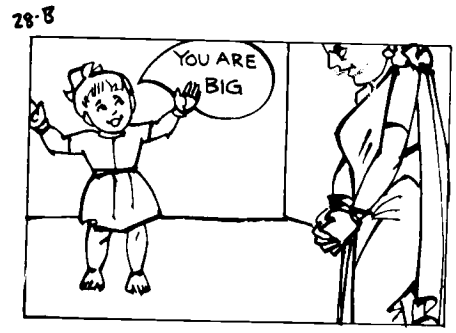
To make the child differentiate big and small objects.
Materials - Tins or Cans of different sizes, Biscuits.

- Sort out objects according to the size. Show him two objects with a lot of difference in size. Point to the bigger one and say 'this is big'. Repeat this with the smaller one.

- Point to the child and say he is small. Point to yourself and say you are big. Use appropriate gestures to say big and small.

- Draw two circles, one big and the other small. Ask him to stand in the small circle. Point to the small circle and let him stand in it.

- Break a biscuit into two parts, one big piece and the other, a small piece. Ask him to take the big piece and point at it. Let him say "big". Give him the big biscuit piece and praise him.



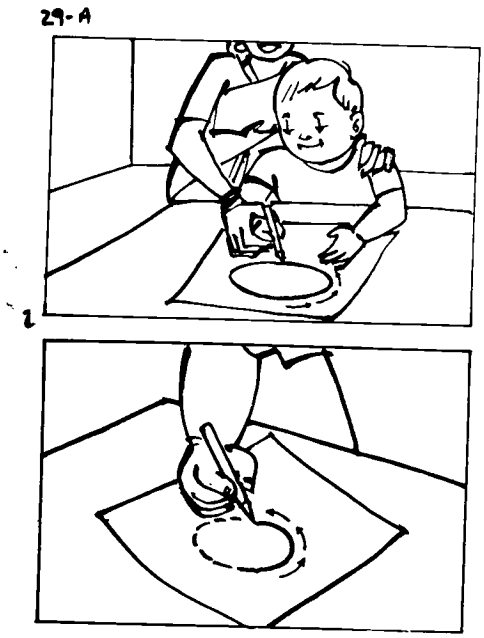
Activity - 30

To make the child copy patterns.
Materials - Paper, A pencil.

- Draw a pattern that has to be copied. Hold the child's hand and physically guide him to trace the pattern. After a few trials let the child draw on the line on his own. Assist him if needed.

- Draw the pattern with dotted lines. Help the child to join the dots.

- Draw the pattern and ask the child to copy it.



Activity - 31

To make the child button his clothes.

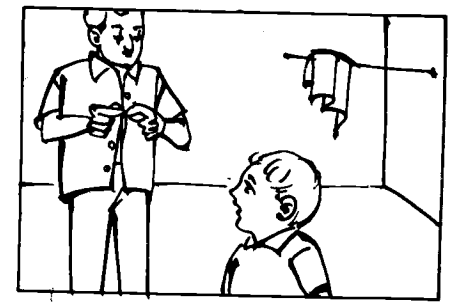
Materials - Clothing with large buttons.

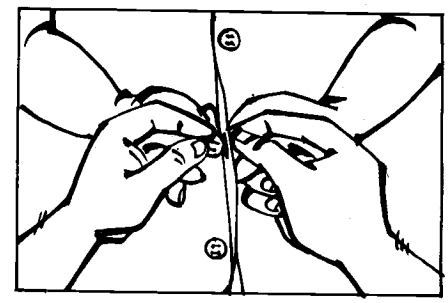
- Button your shirt / coat as the child watches. Help him to do likewise by giving him attractive coat / shirt with big buttons.

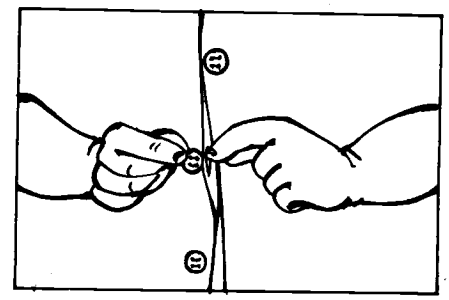
- Push the button half way through and let him complete by pushing it through the button hole and pulling it out with the other hand.

- Stand behind the child. Hold his hands and make him button his shirt. Gradually reduce the assistance and let him do it independently.

- Give verbal directions and let him button the shirt. Start with large buttons and slowly reduce the size of the buttons.







Activity - 32

To make the child comb his hair.

Materials - A mirror, A comb.

- Comb your hair while the child watches. Ask him to comb your hair by giving him the comb.

- Stand in front of the mirror with the child. Comb your hair and ask him to imitate.

- Make him stand in front of a mirror and let him try combing. If necessary, help him to comb his hair. Gradually reduce your help. Let him do independently.

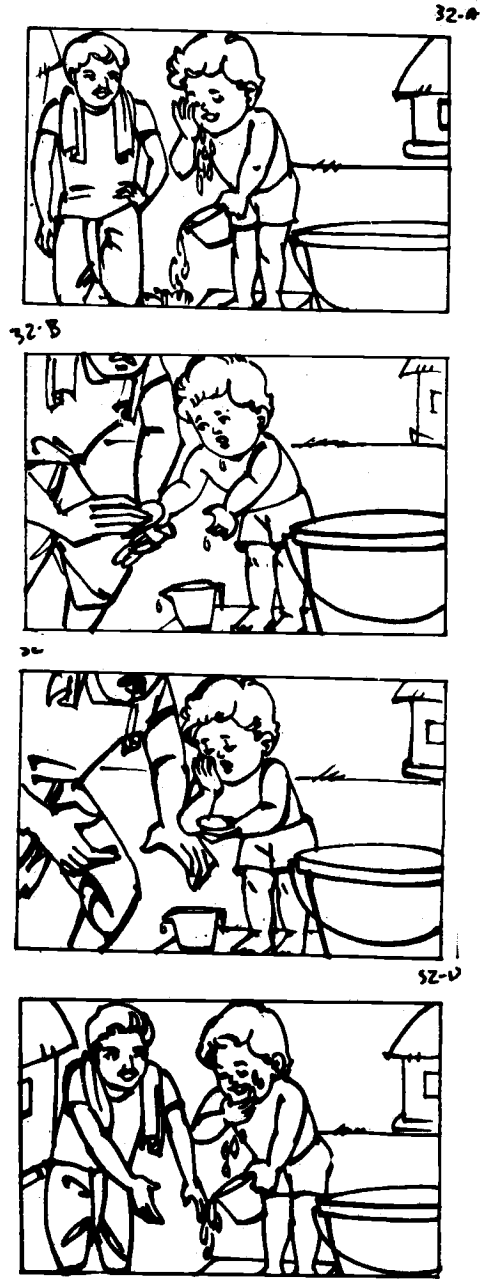
Activity - 33

To make the child wash his face.

Materials - A tub with water, A mug, A soap, A towel.

- Instruct the child to bend at his hip / squat and splash water over the face from a vessel. Help him to apply soap on his hands. Tell him to close his eyes and apply soap on the face.

- Give him the vessel with water and ask him to splash on his face. Initially help him and gradually reduce the help. Give him the towel to wipe his face.



Activity - 34

To make the child associate the time of the day with activity.

Materials - Pictures of various activities.

- Associate the day with the Sun and the night with the Moon. Show that the lights are switched on during night time,

- Talk to the child about the activities done during various time of the day such as eating breakfast in the morning, lunch in the afternoon, playing in the evening and sleeping in the night.

- When the child goes to bed tell him that when he wakes up it will be morning.

- Pictures of various activities can be used to say which time of the day the activity takes place.

Activity - 35

To make the child count up to 10 by rote.

Materials - Ten objects.

- Say the numbers from one to ten and make the child repeat one by one.

- Make a row of ten objects and make the child count after you do.

- Let him walk up or down the stairs and count each step.

33-A

34-A

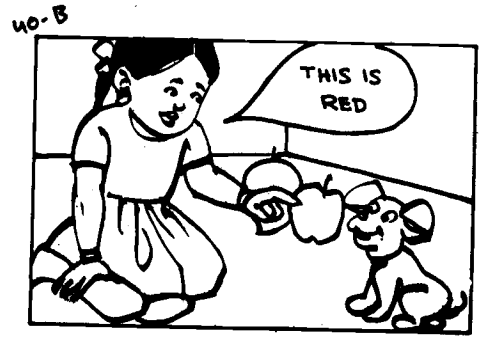
Activity - 36

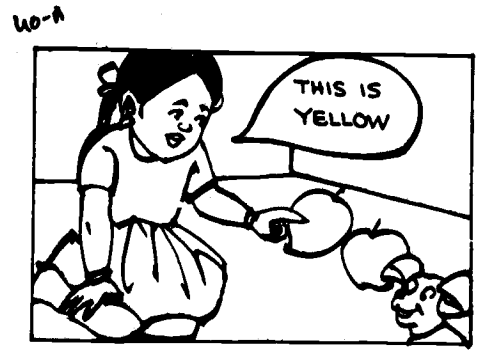
To make the child name the colours of the objects when shown.

Materials - Bangles, Toys, Clothings.

- After the child sorts out the colours, point to one colour and ask him what it is. If he cannot say, name the colout. To make the child name 'red', show him the things in red such as tomatoes, apple, red coloured clothing, bangles, bindi and so on. Let him say the colour of those items.

- Similarly teach the other colours and associate them to things in everday living. Such things need not be taught during training sessions only but can be taught at any time of the day under any circumstances.





Activity - 37

To make the child follow two unrelated instructions.

- Give the child one instruction such as 'close the door'. When he is able to do that, give two instructions such as 'open the window and get the plate'. If he does only one, ask him what the other instruction was. If he fails to say or remember, prompt him. Do not give complicated commands during the inital stages.

Activity - 38

To make the child name the days of the week.

- Say the names of the week and let the child repeat one by one.
- Make a rhyme of the days of the week and teach it as a song to the child.

- Every morning tell him what day it is and what day would follow. If possible make him change the day and date in the calendar.

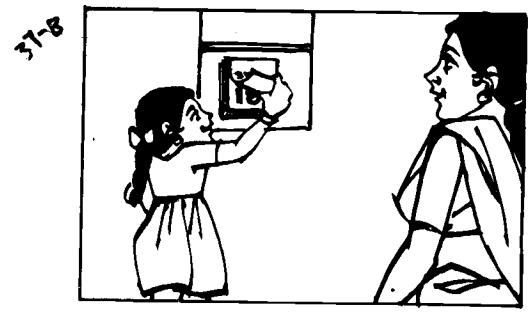
Activity - 39

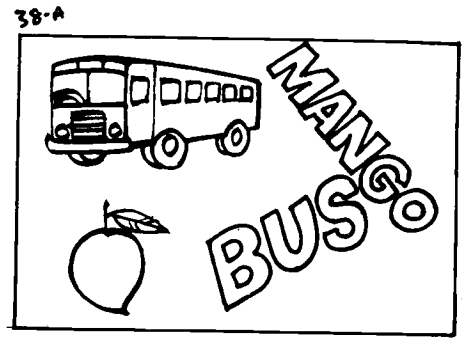
To make the child read simple words.

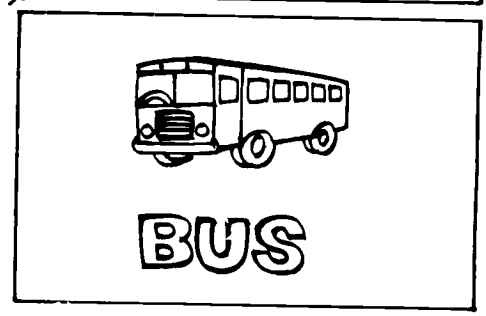
Materials - Pictures of familiar objects with written/printed names.

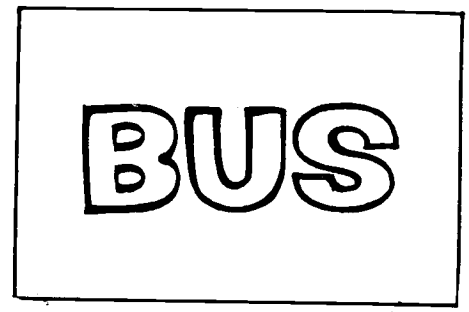
- Show him pictures of common animals, objects of everyday use, plants, various modes of transport etc. and name them. When he recognises the pictures add the written name. Expose the picture with the word many times. When you are sure the child knows it well, separate the word from the picture. Remember to show only two pictures with the names at a time. When the child is able to match correctly give the word alone without the picture and let him read it. Later, as and when the word is seen at any place ask the child to read it.

- Always begin with simple, two letter words. Later, words which we come across in day to day life such as men, women, danger poison, etc., can be taught.









Activity - 40

To make the child count meaningfully upto ten.

Materials - Beads, Stones, Bottle caps, Cups.

- Use beads, stones, bottle caps or such other small items. Have two small cups. Drop one stone in each cup saying one. In the same way drop, two, three and so on.

- Let the child repeat what you did. Correct him if he drops more or less number of stones.

- Ask the child to give you a desired amount. If he gives you incorrectly, correct him. Start with small numbers and then proceed to bigger ones.

- Generalize the activity by asking him to count the number of people in room, number of trees around, number of windows in the room and so on.

39-A

39-B

The activities for skill training described in this chapter are some of the common ones to be trained. The trainer can use his own creative ideas and resources to train the mentally retarded in specific skills.

FOLLOW-UP AND RECORD KEEPING:

One of the important factors in any intervention programme to be successful is systematic record keeping and regular follow-up. In a rural set up, where the experts stay at a district level and help the multi rehabilitation workers to intervene in their respective areas of work, it is very essential that there is proper link and co-ordination. Maintaining records by each level of workers enhances such co-ordination.

When a mentally retarded person is referred by the lower level workers the psychologist, the vocational guidance counsellor or the key person at the district level must obtain details about the retarded person, the family background and the reported condition. The assessment and intervention by the persons belonging to various disciplines and the programme drawn out for the

specific period to be carried out by the rural level worker must be systematically recorded. This record maintained at the district level helps in following up the case periodically and in monitoring the progress or the problems of the cases being intervened.

The components of the record or register should be, personal details of the case, reported condition, diagnosis, intervention plan and the instructions for the lower level workers to carry out the intervention plan, duration of the intervention and the follow-up date. The record must also include the intervention recommended by medical personnel, special educators, occupational therapists, physiotherapists, speech therapists and vocational counsellors so that follow-up can be systematically done.

Guidelines for maintaining record:

- The record or register must be simple and comprehensive.
- Each component should be clearly titled so that persons using them have clear idea of how to use it. There must be no ambiguity in the components.
- Scoring should be easy and key to score must be provided wherever necessary.
- The staff responsible for using the record or register should be familiar with the procedure to ensure accuracy and uniformity in recording.

Individual registers should be maintained for each village and for case in operation. Follow up meeting should be held on the prescribed dates involving the respective experts, the client and the rural level worker to monitor progress and develop further intervention plan. A sample record form is given at the end of this chapter.

Integrated Education of the Disabled (IED)

The integrated education of the disabled persons is a relatively new trend in the normalization movement of the handicapped persons. By this, handicapped children are educated along with the normal children as far as possible. This scheme of integrated education is in effect in our country since 1974 and is sponsored by the Central Government. The schools for normal children who implement this programme by admitting the handicapped children are also funded by the Government. However, integration of children with mild and borderline mental retardation receive technical assistance but not financial assistance.

Integration in social domain is the opposite of segregation. Segregation is the process through which some groups develop social distance from others in the society. The handicapped persons constitute one such special group. The social and physical distance between this group of persons and the rest of the community is increased to the point of ostracisation. The trend today, however, is to normalize their lives to the extent possible, to provide them

the opportunity to grow in the least restricted environment, and to integrate them in the society just like any other citizen.

The integration process is featured with several hues. The first indicator refers to the reduction of PHYSICAL DISTANCE between the mentally retarded persons and the rest of the members of the community. It should be accompanied by the reduction of SOCIAL DISTANCE which implies social interaction among the mentally retarded and the rest accompanied by sharing of facilities in the environment. Finally, these activities culminate in SOCIAL INTEGRATION which implies their acceptance in the community and allocation of citizenship roles appropriate to their level of functioning.

To achieve the ultimate goal of societal integration, it is desirable that the children are accepted in the family, grow in an environment of love and affection in the family and share the environment of growth and development with their normal peers in the community and the school. The National Policy on Education, 1986, therefore, stipulates that children with mild mental handicap will receive their education, as far as possible, in common with others. The programme of Action (POA) envisages that only those disabled children whose needs cannot be met in general schools should be in special schools. The children who are admitted to special schools be integrated in general schools as soon as they acquire the skills of communication, daily living skills, and basic academic skills.

The Government of India has launched the scheme of Integrated Education for the Disabled Children with hundred per cent Central funding to promote education of the disabled children in general schools. In the context of mentally retarded children, the borderline cases and even the educable group of children do enter the general schools and are potential dropouts because of lack of sensitivity of the teachers and absence of special services. These children require services and the special programme for the educable group. After a few years in the primary school the educable group of children are provided a special academic programme including prevocational skills and they continue participation in as many co-curricular and curricular activities as possible with other children. If special classes in general schools are established then the trainable children also can participate in co-curricular activities while they follow a special academic programme. The children studying in special schools may be encouraged to participate in non-academic activity with other children in general schools, wherever feasible, and in special camps wherein both groups of children participate. The scheme encourages normalization movement and integration of the handicapped children in education.

RECORD FORM

Name of the case :

Date :

Age and Sex :

Regn.No. :

Parents/Guardian's Name :
and Address

Follow up No.:

Referred by :

Brief history :

Diagnosis :

General intervention plan :

Specific (short term) intervention plan :

Duration :

Person responsible for carrying out :

Follow up date :

Signature of the person incharge.

Summary :

1. Skill training is one of the major areas of training a mentally retarded child.

2. Before taking up a mentally retarded child for training in various skills, he has to be assessed for his level of functioning in various areas.

3. The current level of functioning can be assessed using an assessment checklist given in the manual which lists forty essential areas.

4. After ascertaining the level of functioning of the child, he is taken up for training in one or two areas. The activities for stimulation/training that child are chosen. The activities are then broken into small steps and the training is started. The details of Individualised Educational Programming are given.

5. Activities for stimulation in forty essential areas are given.

6. Guidelines for maintaining a followup record are given.

7. A brief note on Integrated Education of the Disabled and the types of integration is given.

Self Evaluation - V

1. Breaking down the teaching steps into small, systematic ones is called _____

2. Expand I.E.P. _____.

3. Study the following statements carefully and say whether they are true or false

   a. The activities/skills must be taught only once a day. True/False
   b. Training of the mentally retarded person must be carried out only at the DRC True/False
   c. Child should be appreciated even if he attempts to do a particular task. True/False
   d. Assessment of mentally retarded persons should be done only once in 3 years. True/False
   e. Two or three activities or skills can be taken simultaneously for training a mentally retarded child. True/False
   f. Children with profound mental retardation can be integrated in normal schools. True/False

4. Write the steps involved in I.E.P.

   a. _____ d. _____

   b. _____ e. _____

   c. _____ f. _____

5. The three aspects of the integrated education of the disabled are

   a. _____

   b. _____

   c. _____

6. A male child aged 2 years needs training in sitting without support. He does not have any other handicap. What will be the activities you will take up to train him?

7. A child of 4 years needs training in standing without support. He does not have any other handicap. What will be the activities you will take up to train him?

8. A child of 10 years needs to be trained in indicating his toilet needs. How will you train him?

CHAPTER 6

Management - Behaviour Modification

OBJECTIVES

On completing this chapter the psychologist will be able to

1. List the five major steps in implementing a behaviour modification programme
2. Use various procedures to reduce undesirable behaviours in a mentally retarded person
3. Use different behaviour modification procedures for teaching new adaptive skills to mentally retarded persons.

CHAPTER 6

Management - Behaviour Modification

Impairments in adaptive behaviour, is a component of the definition of mental retardation according to American Association on Mental Retardation. The impairments in the adaptive behaviour may be either a deficit behaviour or an excess behaviour.

Mentally retarded persons may lack adaptive behaviour. These may be poor speech development, inability to attend to bowel and bladder needs without assistance, inability to attend to one activity for a long time, inability to eat by oneself, and inability to look at other person's face and maintain eye to eye contact. These are called Behaviour DEFICITS. They have to be learnt or the deficit has to be made up for effective functioning.

Behaviour modification programmes should be implemented to correct the impairments in the adaptive behaviour. There are five major steps in implementing a Behaviour Modification programme for undesirable and deficit behaviours. They are: I. Identification of the problems, II. Defining target behaviours, III. Behaviour recording (baseline and treatment). IV. Functional analysis and V. Treatment procedures and their evaluation.

Behaviour Modification programmes follow a self-correcting approach. The problems are clearly defined, the data is gathered before and during the treatment programme, the evaluation of the treatment is made and in cases of failure, the treatment procedures are modified. The major steps of a Behaviour Modification programme are explained along with a case illustration. References to the case illustration on page 107 are made periodically while explaining certain concepts in the text.

I. IDENTIFICATION OF THE PROBLEMS: The parent, the teacher or the guardian may come with the complaints about the child's behaviour. The first task of the therapist is to obtain a list of the problem behaviours shown by the mentally retarded person. This can be done by the use of behaviour checklists or behaviour observations (see the appendix for some items from behaviour rating scale of AAMR).

The problems exhibited by the mentally retarded children as already indicated are broadly grouped into two . They are (a) absence of ADAPTIVE BEHAVIOURS (delay in motor development, poor communication skills, self-help skills etc.) and (b) the presence of UNDESIRABLE BEHAVIOURS (beating, head banging, wandering etc.)

The Record Form I on page 100 gives the procedure of identifying behaviour problems.

FORM I

IDENTIFYING BEHAVIOUR PROBLEMS

Name : Prabhat
Age : 9 years

Sex : Male
Regn. No. : 435

Informants : Parents
Date : June 16, 1988

Sl. No.	Problem Behaviours	Priority	Maladaptive/ Deficit behaviour	Target Behaviour	DETAILS*
1	Does not stay in one place	4	Deficit behaviour		Home and school more at school
2	Screams and cries	1	Maladaptive behaviour	✓	Home and School
3	Poor eye to eye contact	3	Deficit behaviour	✓	—
4	Cannot chew food	6	Deficit behaviour		Home
5	Hitting others	2	Maladaptive behaviour	✓	more at school
6	Demands that mother	5	Deficit behaviour		Home
	should feed, wash and dress				
	him				

* Note
1. Define in observable and measurable terms
2. Mention time of day, environmental setting (place, person) and intensity (mild/moderate/severe) of the behaviour whenever available
3. Rank order problem behaviours giving numbers under priority column
4. Put tick mark against target behaviours

II. DEFINING TARGET BEHAVIOURS: This involves the following three steps.

1. The behaviours identified have to be DEFINED IN OBSERVABLE, OBJECTIVE AND MEASURABLE TERMS. For eg. inferential words such as aggressive, disobedient, hyperactive should be avoided. The therapist has to note down the description of the problem behaviour in terms of what the child actually DOES or DOES NOT in detail from the informants rather than in general terms. The meaning of a term like temper tantrum may vary from parent to parent. One may consider non-compliance to a request as a tantrum while another parent may reserve the label for a full blown outburst of screaming, hitting, pulling and throwing things around. Hence the complete behaviour should be noted down.

2. A HIERARCHY OF PROBLEM BEHAVIOURS shown by the persons should be made depending on the severity of the problem and then need of the particular person or caretaker.

3. SELECTING TARGETS: The goals of treatment have to be clear. The behaviours to be modified first are selected and are known as target behaviours. Attempts to manage all the problems simultaneously may be unsuccessful. Two or three problem behaviours may be handled first according to the heirarchy made. Step II is illustrated in Form II on page 102

III. BEHAVIOUR RECORDING: Maintaining behaviour records is very essential in behaviour modification. This is important for monitoring change in the target behaviours as well as for evaluating the effectiveness of ongoing therapy. Recording of target behaviours should be done before intervention (Base Line data) and continuously throughout the intervention period.

Observational Recording is most commonly used with the mentally retarded persons. The type of observational recording used depends on the type of behaviour being recorded. Form III illustrates Behaviour Recording and Functional analysis in a case. The frequency and duration of the behaviours should be recorded at fixed intervals. The details of these components are given below:

a. Frequency: The target behaviour has to be counted every time it occurs. Tally marks may be made to record frequency as shown in Form II.

b. Duration: This is a more sensitive measure than the frequency. The duration of the target behaviour is recorded in seconds, minutes or hours for eg. crying-3 minutes or child sitting in the class-10 minutes.

c. Interval Recording: The total period of observation is divided into equal intervals of time and it is noted whetner the target behaviour occured during each of the periods. This gives an indication of both the frequency and duration of the observed behaviour as well as the sequence of events. However, in this method, continuous recording is difficult and precise measurement of frequency and duration is not possible.

FORM IV

FUNCTIONAL ANALYSIS

Name: Prabhat
Age: 9 years
Regn. No: 435

Recorded Behaviours :

1. Crying and screaming
2. Hitting others
3. Eye to eye contact

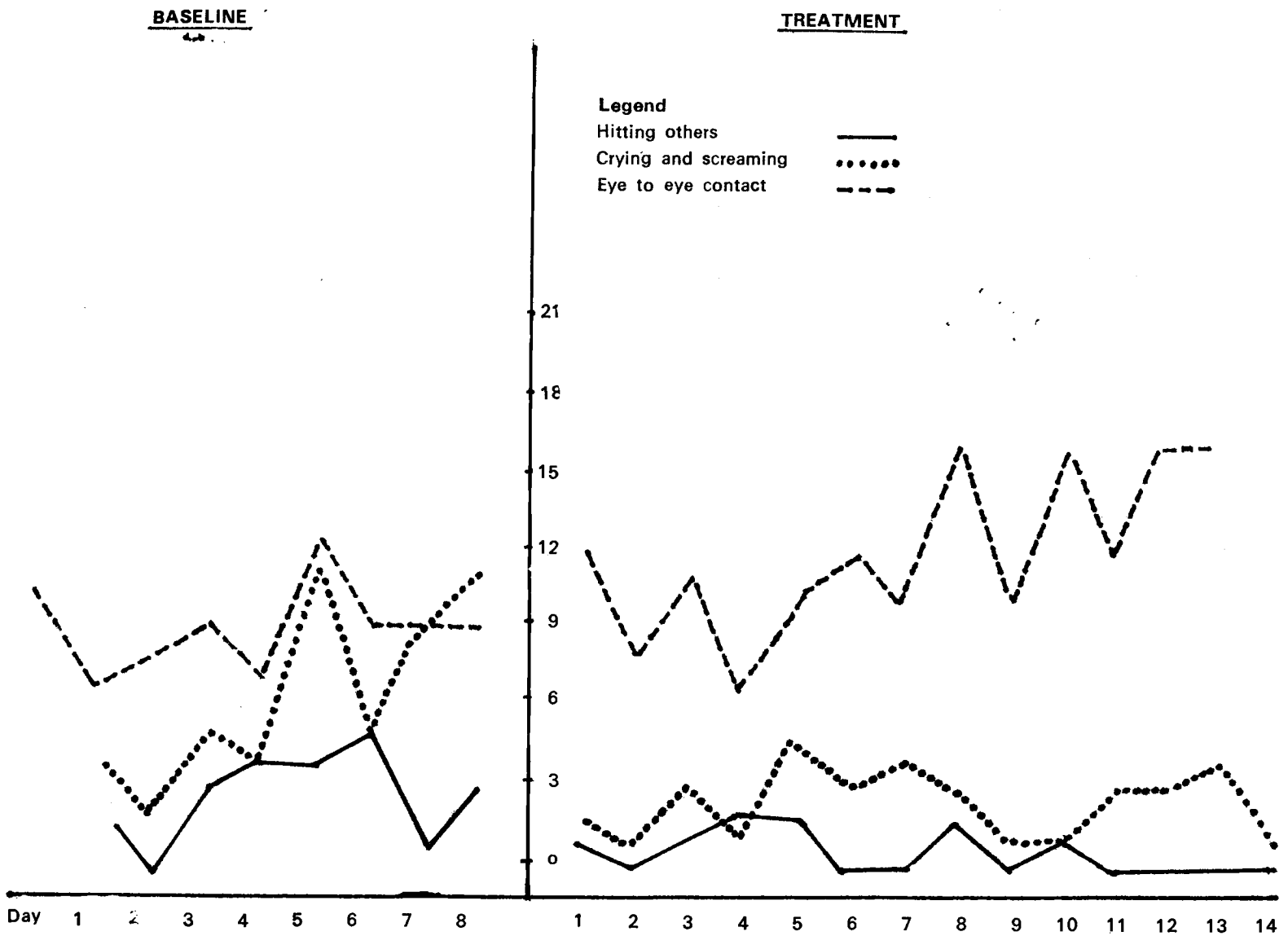
Date : 1.7.1988

Therapist: S.N.

Information : Parents

Sl. No.	Target Behaviours Rate	Antecedents	Conse-quences	Reinforcer identified	Treatment procedures	Other remarks
1.	Crying and Screaming 5.7 per day	1. Prabhat is not given what he demands	Prabhat is given what he wants.	1. Chocolates 2. Cool drinks 3. Being Kissed 4. Being taken on a scooter 5. Music from tape recorder 6. Biscuits	Extinction: Not to yield to the demands Force Prabhat to continue distasteful tasks.	Father is indulgent at times. Mother is over-protective.
		2. When his mouth is being cleaned	Prabhat is forced to obey his parents.			
		3. When strangers come home and talk to Prabhat.	Prabhat avoids unpleasant events		Physical restraint	Too much dependency being encouraged.
2.	Hitting others 2.7 per day	1. When he is ignored by mother.	Prabhat is carried and kissed.		Time out	In consistency in disciplining by father.
		2. When he asks for brothers possessions.	Prabhat is threatened.			
3.	Eye to Eye contact 3.14 minutes per day	1. When he is being fed by mother	Mother smiles at him		Positive reinforcement	
		2. When he is called by name	Mother talks to him .		Shaping	

FORM V BEHAVIOUR GRAPH FOR BASELINE DATA AND TREATMENT DATA



Case Illustration: Behaviour Modification

Prabhat is a 9 year old boy. He was brought one year ago with the complaints of inability to chew food, looking sideways and not maintaining eye contact, lack of bowel control, not feeding by self, restlessness, screaming, fitting others, poor speech development and being uncooperative for any activity.

History revealed that Prabhat was born out of a full term, normal delivery and his milestones of development were delayed. He occasionally indicated bowel and bladder needs if mother was present around. Detailed psychological assessement revealed that the child had an I.Q. of 23 and a diagnosis of severe mental retardation with autistic features was made. On Special educational assessment it was found that Prabhat was totally dependent in all activities including self help skills and was classified under custodial group. Medical examination did not reveal any significant abnormality and the aetiology could not be ascertained.

The management plan included training Prabhat in self help skills, language skills, socialization skills and modification of maladaptive behaviour. It was planned to give priority to behaviour modification before starting other intervention programmes so that the child would be more cooperative and respond better to training.

A detailed behavioural assessment revealed that the child had the following problem behaviours: hyperactivity, screaming loudly when irritated, aversion to new places, fear of strangers, crying continuously and clinging on to mother, beating whoever is around him when he is forced to do any activity and throwing temper tantrums.

Initially three target behaviours were taken up for modification namely crying excessively, beating others and improving eye to eye contact. The parents were trained to do baseline recording of the target behaviour on a structured chart at home which included the duration and frequency of target behaviour.

On functional analysis it was gathered that Prabhat was fond of music, icecreams and biscuits and outings. It was also gathered that both parents were overindulgent and overportective towards the child and the father was inconsistent in disciplining the child. Prabhat's parents were found to yield to his demands whenever he cried for long.

The parents were advised to ignore the child whenever he cried and screamed and not to yield to his demands (extinction). The parents were also advised to physically restrain him whenever he beat others or punish by depriving him of the reinforcers (time out). The mother was asked to reward Prabhat by hugging or Kissing (positive reinforcement), whenever he made attempts (even partial) to look at her when he was called (shaping).

Prabhat was continuously evaluated by recording frequency and duration of the target behaviours. He has shown 50% reduction in crying behaviour, 75% reduction in beating others and 50% improvement in eye to eye contact. Prabhat will continue to be on behaviour management and he is being taken up for improving his communication skills (speech and language) and self help skills.

In the following pages, the various behaviour modification procedures for decreasing undesirable behaviours and increasing desirable behaviours are given

BEHAVIOUR MODIFICATION FOR DECREASING UNDESIRABLE BEHAVIOUR:

The techniques which have been found to be useful in decreasing undesirable behaviours can be classified as follows:

1. Restructuring the environment

2. Extinction

3. Punishment

   a) Time out, b) Response cost, c) Over correction, d) Aversion

4. Differential Reinforcement

Generally these techniques are used along with differential reinforcement schedules. Punishment may be used along with differential reinforcement schedules. There are no indications for specific techniques to be used for specific inappropriate behaviours. The appropriate techniques have to be selected depending on the individual problem and the functional analysis of the antecedents and consequences.

1. RESTRUCTURING THE ENVIRONMENT: The occurence of any behaviour is partly a function of its present and past antecedents. This is called as 'stimulus control'. This is a powerful tool in decreasing undesirable behaviour. For instance, if a child is very distractible in a classroom and is talking to his peers, spending little time on the task in hand, his "off the task" behaviour can be reduced by isolating him or placing a screen around him. This reduces distracting stimuli in the classroom situation. Thus if it becomes evident during functional analysis that the problem behaviour occurs only in one environmental setting and not in others, then restructuring the environment will reduce the likelihood of the occurence of the target behaviour. Restructuring the environment has to be combined with a programme of positive reinforcement of appropriate behaviours and witholding of reinforcement if the maladaptive behaviour occurs in the new environment (Differential Reinforcement).

2. EXTINCTION: It is possible to reduce the frequency of a behaviour by not presenting the immediate reinforcer of the behaviour. This process is called extinction. For example, a 8 year old child had persistent tantrums of loud screaming when he was asked to read. This resulted in the teacher abandoning the task with him. The functional analysis suggested that the boy's tantrums were being reinforced (teacher abandoning the task) by being allowed to escape from distasteful task consequent to his screaming. The extinction programme for him involved non-presentation of the reinforcement on screaming, i.e., continuing the task of reading despite the tantrum.

3. PUNISHMENT: This means introducing consequences for a behaviour that reduces the future probability of that behaviour. During functional analysis the punishing stimulus for a particular child in a particular situation has to be elicited. Its effectiveness will be evident only on its use. Punishment procedures should be administered immediately and consistently following the undesirable behaviour. The common types of punishment procedures are, a. time-out, b. response cost, c. over-correction, d. restraint, and e. aversion.

a. Time-out: This means time-out from positive reinforcement. When the behaviour problems are hazardous or self injurious, procedures like extinction may be undesirable. Hence punishment procedures like time-out are used. Time-out is used in various ways. If the reinforcer concerned is a praise or social attention, time-out involves either removal of the child away from the dining table or meal plate. Time-out could be used in any situation where reward is being presented. The reward is removed during the occurence of undesirable behaviour. When one is not sure about the duration of time-out to be employed, it is better to begin with short periods of time out and slowly increase the duration to several minutes. This procedure is more effective than employing longer duration of time out to start with and reducing the duration later.

b. Response cost: This procedure is used with individuals who are on token programmes for teaching adaptive behaviours. When undesirable behaviour occurs, a fixed number of tokens, stars or points are deducted from what the individual has already earned. This procedure can be used as punishment for aggression, abusive language and late arrival at the workspot or the class room.

c. Over-correction: This involves two separate procedures. 1. Restitution, and 2. Positive practice. For most undesirable behaviours, both procedures may be used but in some selfstimulatory behaviours only positive practices can be used. Restitution means restoring the distrubed to more than the normal condition and positive practices involve practising appropriate modes of responding in situations in which the individual normally misbehaves.If a child keeps eating indiscriminately whatever rubbish he finds on the ground (Pica) restitutional over-correction would involve a prolonged period (15 minutes) of teeth, mouth and hand washing with soap or antiseptic whenever the behaviour occurs. Positive Practice which is done usually after restitution involves a prolonged practice (15 minutes) of appropriate ways of handling rubbish like sweeping, mopping, throwing out the garbage, etc.

d. Restraint: Physical restraint is effective in reducing the behaviours like physical aggression and self-injurious behaviour. The restraint can vary according to the individual such as restraining in a chair, holding the child's arms down tightly to his side for a short period, holding the child's head tightly between the trainer's palms, keeping the child's head between his knees etc. Sometimes a emphatic 'no'preceeds the restraint which

may be tying the hands of the child together for few minutes for hitting behaviour.

e. Aversion: This method is generally used only when all other training methods have failed to control the undesirable behaviours. Life threatening or self-injurious behaviours like severe head-banging, persistent vomiting and biting behaviours are controlled by aversive stimuli. Faradic aversion (battery operated mild shock) is administered immediately following the undesirable behaviour.

Contingent aversive chemical stimuli like strong pungent odours (ammonia), sour or bitter tasting substances can be presented instead of shock in young children.

All punishment strategies in general should be used in combination with a Differential Reinforcement programme for concurrently rewarding desirable behaviours.

4. DIFFERENTIAL REINFORCEMENT: Differential Reinforcement programme involves positive reinforcement for the occurance of appropriate behaviours specified in advance (DRA), absence of the undesirable target behaviour for a specified period of time (DRO), occurence of behaviours which are incompatible with the target behaviour to be reduced (DRI), and the occurance of low rates of the undesirable target behaviour being recorded.

Differential Reinforcement of an adaptive or desirable behaviour should always be added when a punishment is being used for decreasing an undesirable behaviour. Otherwie the problem behaviours tend to get maintained because of the lack of adaptive behaviours and skill defects.

BEHAVIOUR MODIFICATION FOR INCREASING DESIRABLE BEHAVIOURS:

Behaviour is often determined by its consequences. We tend to continue a particular behaviour if its consequences are pleasant. Parents and teachers make children learn by encouragement, praise and rewards. This is known as reinforcement. Reinforcement is defined as any event which when followed by a behaviour strengthens the probability or the frequency of occurance of that behaviour. Reinforcer does not always mean 'something nice' or 'pleasant'. It is any event which increases the probability of a particular behaviour.

There are three types of reinforcers.

1. Primary reinforcer: These are reinforcers which are essential for life. example food, drink, sleep etc.

2. Secondary reinforcers: These are events or objects which have the property of a reinforcer because of pairing with a primary reinforcer. Example: money, points etc.,

3. Social reinforcer: These are the events which have significance at the emotional level. Example, attention, praise, smile, hugging and so on.

Secondary or social reinforcers are more convenient, easily available, acceptable and less subject to satiation compared to primary reinforcers. In the case of severely retarded children primary reinforcers are more effective than other reinforcers.

Methods of selecting reinforcers:

1. Ask the individual directly.
2. Ask the parents, siblings or the caretakers.
3. If the above two methods are not useful, offer a variety of reinforcers like food or drinks to the child and see what he selects more often. (Indirect preference technique).
4. In children who have no particular preferences, observe the child and see what he does most often. Then use this preferred, high frequency activity as a reinforcement for eg. wandering 'off seat' behaviour or stereotyped behaviour.

Presentation of reinforcers:

Four important aspects should be followed while presenting reinforcement.

1. Contingency: Reinforcement should be given only when the desired behaviour occurs.

2. Immediacy: Reinforcement should be given soon after the desired behaviour occurs.

3. Consistency: The behaviour should be reinforced everytime it occurs, especially during the initial stages of a training programme.

4. Clarity: The child should be clearly aware that reinforcement has been given.

Schedules of Reinforcement

Reinforcement may be given following every appropriate response. This is a continuous schedule of reinforcement. On an intermittent schedule the reinforcement is given following certain responses only. The first type is effective in establishing new behaviours. However, the second one is more natural and resistent to extinction. Reinforcement programmes must be planned in advance and strictly followed for the desired results.

Types of schedules:

There are four types of schedules of intermittent reinforcement.

1. Reinforcement can be given following a certain number of responses. This is fixed ratio schedule.

2. Reinforcement can be given after a few number of responses which can vary. This is variable ratio schedule.

3. Reinforcement can be given after specified lapse of time every 15 seconds. This is fixed interval schedule.

4. Reinforcement can be given at varying intervals of time at the end of 15 sec. or 20 sec. or 10 sec. This is variable interval schedule.

Use of different reinforcement schedules results in different responses. Variable ratio and variable interval schedules produce greater resistance to extinction than fixed schedules but they are more difficult to deliver systematically and accurately.

Steps in implementing a reinforcement programme:

1. Specify the goal: eg.Prabhat will look at the therapist's face and have eye to eye contact when the therapist calls his name and talks to him.

2. Identify the reinforcer : eg. Prabhat likes chocolates, cool drinks, toys and being kissed.

3. Teach the behaviour: When eg. Prabhat is called, if he looks at the therapist's face or eyes even for a second, immediately give him a chocolate or kiss him as reinforcement.

4. Fade out the reinforcement: eg. Once the child learns to look more and more steadily into the therapist's eyes gradually fade out the edible reinforcer and use praise and kiss as reinforcers.

It is better to start with short sessions of 5-10 minutes with 10-20 trials per session. Several short sessions can be taken in a day.

Multiple reinforcements should be used with intermittent deprivation of the reinforcers to prevent satiation if the child gets tired of the same reinforcer. As treatment progresses, intermittent schedules of reinforcement (variable ratio or variable interval schedules) can be gradually adopted to avoid extinction of learnt behaviours.

TECHNIQUES FOR INCREASING DESIRABLE BEHAVIOURS:

TOKEN PROGRAMME: Tokens are one form of generalized reinforcers like money or points. They represent the possibility of obtaining something which the child likes. So they act as reinforcers. For example, while teaching the names of common objects to a child, give him a plastic star (token) when ever he responds. He can exchange these tokens for money or food later. Plastic money, coloured stars, ticks or crosses in a token card, points, tickets etc. can be used as tokens.

The use of tokens should be explained before implementing the token programme: 1. The therapist should describe the specific behaviours to be changed in specific terms. 2. The back up reinforcers should be listed out. 3. The time and place of the response occurance and the reinforcement delivery should be specified. 4. The level of exchange for tokens should be fixed before hand. If changes are needed they can be made later.

The therapist should keep a record of all token transactions and the behaviour changes. Once the mentally retarded person has achieved the target, the token system should be faded out gradually. For this, the first step may be changing the reinforcement from a continuous to an intermittent schedule and from token to social reinforcer. Some problems may arise while generalisation is attempted to natural environment. Token programmes have an important role to play in training the persons with mild and moderate mental retardation.

Tokens have a number of advantages. 1. They allow the use of a wide variety of things as reinforcers, which cannot be used in the conventional way. At times it is not convenient to use eatables as an immediate reinforcer. Similarly if the child likes swimming it cannot be used as a reinforcer everytime he behaves desirably. Sometimes social reinforcers are not effective in influencing a child. One way of overcoming these problems is to use tokens as reinforcers. 2. Tokens often bridge the time gap between the desired behaviour and the back up reinforcer. 3. Tokens do not interrupt the teaching programme like food and other items. 4. Tokens are independent of satiation as they can be exchanged for many other reinforcers. 5. They can be used with individuals or with groups as in a classroom.

SHAPING: Knowing 'how to reinforce' is an important aspect of behaviour modification. Shaping is a technique which is used in building up a new behaviour especially with severely retarded persons. In shaping the components of a particular skill, the behaviour is REINFORCED STEP BY STEP. The therapist starts shaping by reinforcing the existing behaviour. Once it is established, he reinforces the responses which are closest to the desired behaviour and ignores the other responses. For example, to establish eye to eye contact, the therapist sits opposite the person and reinforces him even if he moves his upper body towards him. Once this is established he reinforces the person's head movement in his direction and this procedure continues till eye to eye

contact is established. Shaping can be a very lengthy procedure. The therapist can train the person to get a desired response or restructure the environment to produce the desired behaviour.

PROMPTING: Here the therapist initially PHYSICALLY GUIDES THE person to look at him by turning his head towards him. This is then reinforced. Prompting can be effectively used in teaching self-help skills. It speeds up the acquisition of new skills.

CUEING: While the therapist physically guides the person to look at him he says, "Prabhat, look at me". This serves as a cue to the child. Later just by telling him to look at the therapist he looks up. Gestural cues, visual cues and prompting are effectively used in language training.

FADING: Fading is always used along with prompting and cueing. Once the person learns to do something, the therapist gradually fades out prompting and cueing.

ALTERING THE ENVIRONMENT AND GRADED CHANGE: Sometimes to get a response from the child the therapist may have to change the environment. Consider a situation where a child does not drink from a cup but is willing to drink only from a spoon. This is corrected over a period of several weeks, by deepening the spoon for drinking and shortening its handle to make it look more and more like a cup.

CHAINING: Chaining is used when a person fails to perform a complex task. The complex task is broken into a number of small steps and each step is taught to the child. This is the basis of chaining technique. The person is trained to master a chain of behaviours. Chaining technique is particularly used in teaching self-help skills. In forward chaining one starts with the first step, goes on to the second step, then to the third and so on. In backward chaining one starts with the last step and goes on to the next step in a backward fashion. Backward chaining is found to be more efficient in training the mentally retarded children. The latter steps themselves act as a secondary reinforcers to the person to carry out the earlier steps.

All the self-help skills can be taught to the mentally handicapped persons using the techniques of prompting, cueing, fading, chaining and shaping. Each skill should be task analysed as discussed in the previous chapter and the steps meticulously followed in combination with the techniques described. The use of a particular technique depends upon the nature of training to be imparted.

IMITATION: Imitation is a process by which new behaviours are learnt. Children imitate the behaviour of their parents and teachers. In normal children, imitation is a natural event. Mentally retarded children often lack it. If prompting is needed in addition to imitation, the therapist can have an assistant to prompt the child. In imitation, the model also should be reinforced for the response to indicate to the child that the reinforcement occurs after the correct response. Peer models are found to be better imitated than other models. Some children tend to imitate adult models. So the choice of the model depends on the child.

GENERALISATION: If a behaviour taught in a particular place is exhibited in other places also then we say that generalisation has taken place. In retarded persons, generalisation is observed to be a slow process and the appearance of a particular desired response may be situation specific. So efforts to generalise the skills learnt should be part of behaviour modification programme. The presence of child's mother during training session or teaching in an environment similar to the home/natural setting would minimise the problem of generalisation.

DISCRIMINATION: In discrimination training the mentally retarded person is taught the specific environmental conditions in which a particular behaviour is appropriate. Mentally retarded persons often have poor ability to discriminate situations. The technique of differential reinforcement is used to achieve the ability to discriminate. Only the correct responses in a particular situation are reinforced and the incorrect ones are punished. The person has to be taught the specific stimuli associated with a particular response. In increasing speech in a retarded boy answering questions in class will be reinforced but not talking to classmates.

The reinforcement techniques of prompting, cueing, fading, discrimination training and imitation can be effectively used in language training. For example, to teach a child spontaneous naming of objects, the therapist takes an object such as a ball and asks the child "What is this"? and immediately gives a verbal prompt as 'Ball'. Gradually the verbal prompts are 'faded' in a sequence as Ball,Ba-,and B-. The child is asked to supply the missing sounds. The child is reinforced every time he makes an attempt initially. Gradually the reinforcement can be changed into an intermittent schedule. Careful assessment is needed to decide the effective reinforcer in language training. Since language is essentially a social skill, teaching the subject to respond to social rewards is the best reinforcement. If it is ineffective, alternate reinforcement should be tried out and they should be faded out gradually.

All the techniques mentioned for increasing desirable behaviours are always used in combination in teaching new skills to mentally retarded persons.

Summary :

1. Mentally retarded persons have behaviour deficits. Some of them have undesirable and problematic behaviours.

2. Behaviour modification programmes for undesirable and deficit behaviours are implemented in a systematic way. Identification of the problem, defining target behaviours, behaviour recording, functional analysis and the implementation of treatment procedure are the steps involved.

3. Proforma are given for identification of the problem, selection of target behaviour, behaviour recording, functional analysis and recording the behaviour graphically.

4. Various behaviour modification procedures for increasing desirable behaviour and decreasing undesirable behaviour are given.

Self Evaluation - VI

1. Behaviour modification may be used to _____ undersirable behaviours and _____ adaptive behaviours.

2. The target behaviour should be defined in _____ and _____ terms.

3. Name the five steps in implementing a behaviour modification programme.

   a. _____ d. _____

   b. _____ e. _____

   c. _____

4. Study the following statements carefully. Do you consider them as True or False:

   a. Antecedents are the events which occur immediately before the behaviour has occured True/False

   b. Differential Reinforcement should never be used with punishment procedures True/False

   c. Extinction should be used when problem behaviours are self-injurious or harmful to others True/False

d. Aversion is the last method to be used for decreasing undesirable behaviours

True/False

e. Intermittent reinforcement is generally used first when teaching a new skill

True/False

5. Name any four techniques for decreasing undesirable behaviours.

a. _____ c. _____

b. _____ d. _____

6. The four principles of presenting reinforcement are:

a. _____ c. _____

b. _____ d. _____

7. Match the following.

1. Social reinforcer	a Pleasant event following behaviour	( )
2. Primary reinforcer	b Money	( )
3. Secondary reinforcer	c Praise	( )
4. Positive reinforcer	d Chocolates	( )

8. The two types of chaining procedures are _____ chaining and _____ chaining.

9. What are the four schedules of intermittent reinforcement?

a. _____ c. _____

b. _____ d. _____

10. Name four commonly used procedures for increasing adaptive behaviours.

a. _____ c. _____

b. _____ e. _____

CHAPTER 7

Parent Counselling

OBJECTIVES

On completing this chapter the psychologist will be able to

1. List the qualities of a good counsellor
2. Identify the goals of counselling in mental retardation
3. Clarify the common wrong beliefs about mental retardation.

CHAPTER 7

Parent Counselling

All parents wish for a healthy and a normal child. However, when a disabled child is born all hopes of the parents are shattered. This calls for a life long adjustment. In order to assist the parents in dealing effectively with the situation counselling is essential, as a part of the whole management plan. It aims at helping parents understand and accept the child's problems. This also helps them in making plans appropriate to the capability of the mentally retarded person. To be an effective counsellor one should have certain skills and characteristics. These include:

- Sincerity. The basic quality of a successful counsellor is the sincerity with which he wishes to help the client. This in turn develops trust and confidence in the client. In such a situation parents would come out freely with all the problems they face with the mentally retarded child. It is very important that the counsellor should keep this information about the client and the family situation confidential. The counsellor should have an unconditional regard towards the client and he should have an unbiased behaviour.

- Reassurance. It is essential to make the parents feel that the counsellor understand them and the problems they face. He should patiently listen to whatever the parents say, even if the information seems unimportant. At the same time he should be careful not to give false hopes to the parents. An effective counsellor would make the client feel reassured and trusting of the counsellor.

- Effective communication. Simple language should be used while counselling and technical language should be avoided. The very purpose is defeated if parents are not able to follow what is conveyed. Honest information on the child's condition and the various facilities available should be clearly conveyed. However, the final decision regarding management should be left to the choice of the parents.

- Emotional stability. When the parents learn that their child will not become normal, they might get frustrated. They may either breakdown or may become aggressive towards the counsellor. The counsellor should maintain his emotions and must not react adversely to these feelings of the parents. The counsellor should understand that the parents are not upset with the counsellor but with the situation they are facing and are venting their feelings released by their awareness of it. On the otherhand, the counsellor should make the parents feel relieved of the anxiety and frustrations, they had been lodging for a long time.

The focus of counselling depends upon the individual needs of the mentally retarded child and his family. The following are the stages of counselling the parents of a mentally retarded person.

Stage 1: Impart information regarding the condition of mentally retarded child:

- The child's actual condition should be explained in simple words to the parents

- Enough time must be spent while counselling

- Misleading, giving false information or building false hopes in parents must be avoided.

- Information regarding professional help for treating associated conditions like fits, hyperactivity, or other handicaps must be made available to the parents.

Stage 2: Help the parents to develop right attitudes towards their handicapped child

- Many a time the beliefs, attitudes and ideas of the parents regarding the causes and management of the disabling condition of their child tend to be wrong. This is especially true with mental retardation because the child usually looks 'normal' and yet functions subnormally. Because of the lack of awareness, the parents tend to believe that the child would become normal in due course of time. Some parents blame each other for being responsible for the birth of such a child due to lack of awareness on causes. Some parents look for medical, surgical or magical cures for their child's condition. Some even feel that nothing could be done for such a child.

- The counsellor should give correct information on the nature, causes and management of mentally retarded persons. He should give suitable examples of the other persons with mental retardation and how they are managed.

- Some parents have faulty attitudes towards their mentally retarded child. This may be due to either overprotection or rejection.

- Attitude of overprotection i.e. shielding the child from any challenging situation and/or doing almost everything for the child before he fully attempts to do them should be corrected as it hinders the development of whatever capacities the child may have.

- Attitude of rejection, that is, thinking that the child is good for nothing and ignoring him should be changed so that the child can be helped to learn by systematic training.

- Some parents push their child too hard expecting them to learn or achieve beyond his abilities. This may lead to frustration and failure in the mentally retarded child. The parents should be made aware of what capabilities they may expect of their child.

- Some parents suffer from guilt feelings that they are responsible for their child's condition. The parents should be explained that the condition of mental retardation is generally due to causes over which parents have no direct control.

Stage 3: To create awareness in the parents regarding their role in training the mentally retarded child.

- Once the parents bring their child for consultation, they tend to believe that the management of the child will be taken care of by the persons working for the mentally retarded persons. The counsellor should explain the effectiveness and role of the parents and other family members in training the mentally retarded child.

- Some parents believe that training a mentally retarded child needs specialized skills and they may not be able to train their child. The parents should be made aware that training a mentally retarded child does not need complex skills and that with repeated training in simple steps, the mentally retarded child can learn.

- Meeting of the parents of mentally retarded children who are being helped, with the parents of mentally retarded children who are newly identified will be helpful. This will also offer them opportunities for mutual support.

- Parents should be helped to learn the skills in training their child through demonstrations and observations.

- Parents should be demonstrated how their training has helped the child to acquire some skills. This will develop a sense of achievement in the parents making them more involved in the training of their mentally retarded child.

Some Questions Parents ask.

Misconceptions are incorrect ideas held by any person with regard to any condition. Such misconceptions may be present in the parents of the mentally retarded childern or the general public about mental retardation.

Measures taken by the parents in managing the problems of their mentally retarded child will depend upon the ideas they hold about the condition. The amount of cooperation one would receive from the parents in the training of the mentally retarded child is related to the amount of correct knowledge the parents have about mental retardation. Some questions the parents ask about mental retardation and their answers are given below:

1. Is mental retardation same as mental illness?

No. Mentally retarded persons are not mentally ill. The mentally retarded persons are just slow in their development. Therefore, they are dull and slow in undertanding and have difficulty in learning various skills needed for daily living. Usually they have problems in speech. Some of them can be educated upto the 5th class while the others cannot reach even this level.

The mentally ill, on the other hand have normal development. Mental illness can occur at any age and even among the highly qualified people. Mental illness can be generally cured.

2. Is mental retardation curable?

No. Mental retardation is a condition which cannot be cured. But timely and appropriate intervention can help the mentally retarded person to learn several skills.

3. Can marriage solve the problems of mental retardation?

No. Many people think that after marriage, the mentally retarded person will become active and responsible or release of sexual tensions will cure the person. That is not so. Marriage will only further complicate the problems. When it is known that a mentally retarded person cannot be totally independent, it will not be possible for him/her to look after his/her family.

4. Do mentally retarded persons become normal as they grow older?

No. The mentally retarded person's mental development is slower than that of a normal person. Therefore, when their actual age increases with time, the mental development does not occur at the same pace to catch up with the actual age. The mentally retarded persons cannot become normal as they grow older, but, with intensive training they can improve to some extent. Early training is very important.

5. Is mental retardation an infectious disease?

No. Many people think that on allowing normal children to mix, eat or play with mentally retarded children, the normal childeren also develop mental retardation. This is wrong. Interaction between mentally retarded children and normal children on the other hand, helps in the improvement of mentally retarded children. The normal children will understand the problems of the retarded children and will accept them.

6. Is it true that the mentally retarded persons cannot be taught anything?

No. Mentally retarded persons can be taught many things. They can learn to look after themselves. They can do tasks such as watering the plants, sowing the seeds, looking after the cattle, sweeping the floor, cleaning the utensils and carrying the loads. The mentally retarded persons have to be trained systematically. They can perform many jobs under supervision.

7. Is it true that mental retardation is due to karma and hence nothing can be done about it?

No. Believing that mental retardation is due to their karma helps the parents to be free from the feelings of guilt. But having this belief and making no efforts to train the child and leaving the child to fate is not correct. Parents must be told that whatever may be cause, training the child will improve him/her. The earlier the training is started, the better the chances of improvement in the child.

Summary

1. Parent counselling is an important aspect of the management of a mentally retarded person.

2. Sincerity, reassurance, effective communication and emotional stability are the important characteristics of a good counsellor.

3. The stages of counselling are imparting information regarding the condition of the mentally retarded child, helping the parents to develop right attitudes towards their handicapped child and creating awareness in the parents regarding their role in training their mentally retarded child.

4. Some of the common questions parents ask about mental retardation and the answers are given.

Self Evaluation - VII.

1. The characteristics of a good counsellor are

   a. _____

   b. _____

   c. _____

   d. _____

2. List four important messages which you would give to the parents of a mentally retarded child in a rural area.

   a. _____

   b. _____

   c. _____

   d. _____

3. Study the following statements carefully and say whether they are true or false.

   a. Parents should be given high hopes that the mentally retarded child will show dramatic results. True/False

   b. Lot of time must be spent in understanding the problems of the parents. True/False

   c. The goal of counselling is to protect the mentally retarded child from being illtreated. True/False

   d. Forming parent associations in the village will help the parents to understand the problem better. True/False

4. Write four common misconceptions about mental retardation held by people in your area.

   a. _____ c. _____

   b. _____ d. _____

Answer Key

Self Evaluation - I

1. a. Significantly subaverage general intellectual functioning

   b. Impairments in adaptive behaviour

   c. Manifestation during the developmental period

2. 2%

3. a. Methodology

   b. Type of population studied

   c. Definition of mental retardation

4. a. (3)

   b. (1)

   c. (4)

   d. (2)

5. Match the following

   a. (2)

   b. (3)

   c. (4)

   d. (1)

6. True or False

   a. True

   b. False

   c. False

   d. True

   e. False

Self Evaluation - II

1. b

2. b

3. c

4. a. Immunization of children

   b. Adequate nutrition to children

   c. Prompt control of high fever in children

   d. Immediate control of fits in children

5. c.

6. c.

7. a. Early infantile autism

   b. Child with emotional disturbance

   c. Specific learning disabilities

   d. Child with hearing and or visual handicap

8. b.

Self Evaluation - III

1. a. (2)

   b. (4)

   c. (1)

   d. (3)

2. a. Delay in milestones of development

   b. Fits or physical disability

   c. Poor scholastic performance

3. a. (3)

   b. (1)

   c. (4)

   d. (2)

4. 3-5-4-2-1

5. Start with infant stimulation programme. Stimulate the child with visual, auditory and tactile stimuli. Train the child in motor skills. Refer to a special educationist (or psychologist at the DRC), physiotherapist and a speech pathologist for necessary follow up advice.

6. This boy may not be mentally retarded as he was normal till 9th year. The boy should be referred to a psychiatrist for detailed examination as he might have some psychological problems resulting in the poor scholastic performance.

7. The current level of functioning has to be assessed and a management plan has to be drawn out to train the child in self help skills and communication skills. The child should be sent for regular follow up to the doctor and the physiotherapist.

Self Evaluation - IV

1. a. Developmental schedules

   b. Verbal tests

   c. Non-verbal and performance tests

2. Overall general intellectual functioning and adaptive behaviour.

3. c.

4. Vineland Social Maturity Scale

5. Sensory and motor

6. a. False

   b. True

   c. False

   d. True

   e. False

   f. True

   g. False

   h. True

Self Evaluation - V

1. Task analysis

2. Individualized Educational Programming

3. a. False
   b. False
   c. True
   d. False
   e. True
   f. False

4. a. Choosing a skill
   b. Assessing the current level of functioning
   c. Annual goals
   d. Short term objectives
   e. Procedure
   f. Evaluation

5. a. Physical integration
   b. Social integration
   c. Societal integration

6. Ensure that the child has neck control. Place the child on the back. Hold his fingers and pull him to sitting position. See that the legs are stretched and spread apart to get balance. Support the back with the palm and slowly reduce the support. Keep toys in front of the child so that the child is busy with them.

7. Look for the tone of the muscles of the child. Put him in standing position with support and see whether he can place both the feet uniformly on the ground and support himself. Have the child hold your fingers with both his hands. Pull him upto standing position and keep talking to him as you do this. Slowly withdraw one hand and let him hold only one hand and stand. Gradually withdraw the second hand also. Let him stand. See that his feet are placed apart to balance when you withdraw total help.

8. See whether the child is mobile. Check for motor problems. Observe and record the time of urination and bowel movements continuously for a period of one week. Using this record as a reference take the child to toilet 3 to 5 minutes before the noted time. Use one code word always when you make him sit on the toilet or in the toilet area.

Self Evaluation VI

1. Decrease, increase

2. Observable, measurable

3. a. Identification of the problem

   b. Defining target behaviours

   c. Behaviour recording

   d. Functional analysis

   e. Treatment procedure

4. a. True

   b. False

   c. False

   d. True

   e. False

5. a. Restructuring the environment

   b. Extinction

   c. Restraint

   d. Time out

6. a. Contingency

   b. Immediacy

   c. Consistency

   d. Clarity

7. a. (4) b. (3) c. (1) d. (2)

8. Forward, Backward

9. a. Fixed ratio

   b. Variable ratio

   c. Fixed interval

   d. Variable interval

10. a. Token programme

    b. Shaping

    c. Chaining

    d. Prompting

Self Evaluation - VII

1. a. Sincerity

   b. Reasurring

   c. Effective communication

   d. Emotional stability

2. a. Mentally retarded child can be trained

   b. Mental retardation is not an infectious disease

   c. Mental retardation can be prevented

   d. Step by step training of a mentally retarded child is the key to success.

3. a. False

   b. True

   c. False

   d. True

4. Write the common wrong beliefs about mental retardation prevalent in your area.

Appendix

1. Seguin Form Board Test - Instructions for administration and the norms.
2. Vineland Social Maturity Scale (Nagpur adaptation) with norms and scoring sheet.
3. Developmental Screening Test - Bharatraj.
4. Gesell's Developmental Schedule
5. NIMH Developmental Screening Test
6. Items from Behaviour Rating Scale of AAMR

SUGUIN FORM BOARD TEST

INSTRUCTIONS FOR ADMINISTRATION

- The board's position is so placed that the star is toward the examiner. With the subject watching, the ten pieces are stacked in three piles, starting with the rectangle, in the order shown by the numbers below:

	Examiner's left		Middle		Examiner's Right	
Top	Hexagon	(3)	Triangle	(7)	Diamond	(10)
	Oval	(2)	Cross	(6)		
			Square	(5)	Circle	
Bottom	Rectangle	(1)	Half-circle	(4)	Star	(9)
						(8)

- For the child with proper hearing say, "PUT THESE BACK AS FAST AS YOU CAN, READY, GO." Start the stop watch when you give the command. Count any fraction of a second as a whole second. If any block is left partly outside, resting on the edge instead of fitting into the recess, do not record the time but treat trial as incomplete. Call the subject's attention to the fact that the block or blocks were not complete in place.

- For the deaf subject indicate with a gesture that the blocks are all to go back in their places. Use any manual sign for fast with which he is familiar.

- Blocks should be stacked by the examiner rapidly, but without any suggestion of nervous haste; memorize the bottom to top order; to avoid any hesitation. Say nothing during the progress of a trial.

- Make sure that the subject does not start before the signal is given.

- The test consists of three trials, including any trial marked incomplete

- The score is the shortest time in seconds out of the three trials.

- Convert the score into mental age (MA) by referring to the norms. Compute Intelligence Quotient (IQ) by the formula IQ = (MA/CA)X 100 where CA is chronological age.

NORMS FOR SEGUIN FORM BOARD TEST

Mental age	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5
Shortest of three trials (seconds)	56	46	40	35	31	27	25	23	21.5	20	19	18.5	17.5
Total of three trials (seconds)	216	161	133	125	114	105	98	90	83	77	72	68	64

Mental age	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	16	17	18	19	20
Shortest of three trials (seconds)	16.5	16	15	14.5	14	13.5	13	12.5	12.5	12	12	11.5	11	10.5	10.5	10
Total of three trials (seconds)	61	58	55	52	49	46	43	41	39	37	36	35	35	34	34	34

VINELAND SOCIAL MATURITY SCALE

(Indian Adaptation by Dr.A.J.Malin)

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. For details of the complete VSMS one should refer to VSMS manual. VSMS can be used for the age group of 0-15 years.

The examiner should collect information on VSMS test items regarding child's abilities through direct observation and suppliment it by interviewing the mother.

RECORDING

Use Record Sheet for noting the child's responses. Mark the item pass (✓) if the child is able to perform correct and fail (x) if otherwise. Half credits may be given if it can be presumed that the child could have passed the item if the opportunity was present. These half credits receive full credit if they lie between two passed items.

SCORING

Add up passed scores (full and half). Find out the Social Age (SA) from Appendix II of VSMS manual. Compute Social Quotient (SQ) by dividing SA by CA and multiplying by 100. Assess maturity levels both in terms of SA and SQ for each of the eight social areas by referring VSMS norms and enter in the columns of social maturity constellation record.

VINELAND SOCIAL MATURITY SCALE RECORD SHEET

S.No	Test items	S.No	Test items

0 - 1 YEAR

1. "Crows", Laughs
2. Balances head
3. Grasps objects within reach
4. Reaches for familiar persons
5. Rolls over,(unassisted)
6. Reaches for nearby objects
7. Occupies self unattended
8. Sits unsupported
9. Pulls self upright
10. "Talks", imitates sounds
11. Drinks from cup or glass assisted
12. Moves about on floor (creeping, crawling)
13. Grasps with thumb and finger
14. Demands personal attention
15. Stands alone
16. Does not drool
17. Follows simple instructions

1 - 2 YEARS

18. Walks about room unattended
19. Marks with pencil or crayon or chalk
20. Masticates(chews)solid or semi-solid food
21. Pulls off clothes
22. Transfers objects
23. Overcomes simple obstacles
24. Fetches or carries familiar objects
25. Drinks from cup or glass un-assisted
26. Walks without support
27. Plays with other children
28. Eats with own hands (biscuits, bread etc.)
29. Goes about house or yard
30. Discriminates edible substances from non-edibles
31. Uses names of familiar objects
32. Walks upstairs unassisted
33. Unwraps sweets, chocolates
34. Talks in short sentences

2 - 3 YEARS

35. Signals to go to toilet
36. Initiates own play activities
37. Removes shirt or frock if un-buttoned
38. Eats with spoon/hands (food)
39. Gets drink (water) unassisted
40. Dries own hands
41. Avoids simple hazards
42. Puts on shirt or frock unassisted (need not button)
43. Can do paper folding
44. Relates experiences

3 - 4 YEARS

45. Walks downstairs, one step at a time
46. Plays co-operatively at kindergarten level
47. Buttons shirt or frock
48. Helps at little household tasks
49. "Performs" for others
50. Washes hands unaided

4 - 5 YEARS

51. Cares for self at toilet
52. Washes face unassisted
53. Goes about neighbourhood un-attended
54. Dresses self except for tying
55. Uses pencil or crayon or chalk for drawing
56. Plays competitive exercise games

S.No	Test items	S.No	Test items
	5 - 6 YEARS		9 - 10 YEARS
57.	Uses hoops, flies kites, or uses knife	75.	Cares for self at meals
58.	Prints (writes) simple words	76.	Makes minor purchases
59.	Plays simple games which require taking turns	77.	Goes about home town freely
60.	Is trusted with money		
61.	Goes to school unattended		10 - 11 YEARS
	6 - 7 YEARS	78.	Distinguishes between friends and play mates
62.	Mixes rice "properly" unassisted	79.	Makes independent choice of shops
63.	Uses pencil or chalk for writing	80.	Does small remunerative work; makes articles
64.	Bathes self assisted	81.	Follows local current events
65.	Goes to bed unassisted		
	7 - 8 YEARS		11 - 12 YEARS
66.	Can differentiate between AM & PM	82.	Does simple creative work
67.	Helps himself during meals	83.	Is left to care for self or others
68.	Understands and keeps family secrets	84.	Enjoys reading books, newspapers and magazines
69.	Participates in pre-adolescent play		12 - 15 YEARS
70.	Combs or brushes hair	85.	Plays difficult games
	8 - 9 YEARS	86.	Exercises complete care of dress
71.	Uses tools or utensils	87.	Buys own clothing accessories
72.	Does routine household tasks	88.	Engages in adolescent group activities
73.	Reads on own initiative	89.	Performs responsible routine chores
74.	Bathes self unaided		

Vineland Social Maturity Scale

EXPLANATION OF SOME ITEMS

1. Vocalizes inarticulately (other than crying or fretting). Spontaneously gargles or coos. Laughs spontaneously or when stimulated.

6. Attempts to obtain objects nearby but beyond reach.

7. Plays with rattle or simple objects for quarter hour or longer without need of attention.

14. Indicates desire to be "Talked" to or beyond mere handling, or care for physical needs.

16. Has established control of saliva so that mouth or chin does not require wiping except while eating.

17. Comes when called; points to particular objects in pictures when asked; in general co-operates on verbal request in very simple activities.

22. Pours from one vessel to another without messing; removes, transfers, or replaces objects in somewhat purposeful manner.

23. Opens closed doors; climbs up on chair; uses stool for reaching; removes simple impediments.

26. Walks by pushing a cart on wheels or a walker.

27. Activity is individual rather than co-operative, but he "gets along" with other children.

28. Eats things like biscuit or bread holding in his own hand or uses spoon to eat from a bow, a cup, or a plate.

35. By actions or speech expresses to go to urinate or care himself., May be assisted at the same.

36. Occupies self at play such as drawing or colouring with pencil, looking at books or pictures.

41. Comes in out of rain. Shows some caution regarding strangers. Is careful as regards falling on stairs.

44. Gives simple accounts of experiences or tells stories.

46. Participates in co-ordinated group activity as kindergarten circle games, cooking or group play.

49. Entertains others by reciting, singing, or dancing,

55. Draws forms like man, house, tree, animal etc.

56. Engages in tag, hide and seek, jumping, rope, tops, skipping, or marbles.

57. Hoops-ring pushed by hand or stick, cycle tyre.

59. Games with others requiring taking turns, observing rules without undue dissension; carroms, draft, snake and ladder, trade etc.

60. Is responsible with small sums of money when sent to make payments of explicit purchases.

63. Writes (not prints) legibly with a pencil a dozen or more simple words with correct spelling.

65. Performs bedtime operation without help; goes to room alone, changes dress and turns out light.

67. After the meals is served first, helps himself more according to the need.

69. Boys: Games not requiring definite skill and with only less rules such as unorganised hockey, football, khokho and follow the leader. Takes hikes or bicycle rides.

    Girls: Engages in dramatic play symbolizing domestic or social situation such as playing house, school, doctor-nurses etc.

    (Note: *Sex differentiation in play is noted at this stage and there is a shift in girls play to more sedentary ones. However, credit item regardless of sex if this differentiation has not yet been established.)

71. Makes practical use of hammer, screw driver and household articles. Sews. Uses garden tools etc.

72. Helps effectively at simple tasks for which some continuous responsibility is assumed; dusting, arranging, cleaning, washing dishes, making bed etc.

73. Reads comic strips, movie titles, simple stories, notes simple instructions, elementary news item for own entertainment or information.

76. Buys useful articles, exercises some choice or discretion in doing so and is responsible for safety of articles, money and correct change.

79. Able to decide for self, which shop to go for purchasing different articles.

80. Makes articles for self use, e.g. making simple gardens, stitching buttons, preparing tea for self, doing small repairs, taking care of own cabinet, table and room or performs occasional work on own initiative such as odd jobs, housework, helping in care of childern, sewing, selling magazines, carrying newspapers for which some money is paid.

81. Writes letters to get information regarding some books, magazines or toys.

82. Makes useful articles; cooks, bakes, raises pets, writes simple stories or poems; produces simple drawings or paintings.

83. Is sometimes left along and is successful in looking after own immediate needs or those of others who may be left in his care.

85. Participates in skilled games and sports as card games, basketball, tennis, hockey, badminton, understands rules and methods of scoring.

86. Includes washing and drying hair, care of nails, proper selection of clothing according to occasion and weather.

87. Selects and purchases minor articles of personal clothing with regard for appropriateness, such as ribbons, underwear, linen, shoes etc.

88. Is an active member of a co-operative group, athletic team, club, social or literary organization. Plans or participates in picnic trips, outdoor sports, etc.

89. Such as assisting in house work, caring for garden, cleaning car, washing window, waiting at table, bringing water etc.

VINELAND SOCIAL MATURITY SCALE - NORMS FOR PROFILE ANALYSIS

Maturity Levels (Years)	Months	SHG	SHE	SHD	SD	OCC	COM	LOC	SOC
XV	180					89			
	168				87				
	156			86			84		88 85
XII	144				83	82			
	140								
	136								
XI	132					80	81		
	128				79				
	124								78
X	120								
	116								
	112		75	74	76			77	
IX	108								
	104			70		72	73		
	100			70		71			
VIII	96								
	92								
	88	66	67	65					69 68
VII	84			64					
	80						63		
	76		62					61	
VI	72								
	68				60				
	64					57	58		59 56
V	60			54		55			
	56			52					
	52	51		50				53	
IV	48								
	44					48			
	40			47			44	45	49 46

III	36 32 28	41 35	39 38	42 40 37	43 36			
II	24.0 21.6 19.2 10.8 14.4	26 23	33 30 28 25 20	21	24 22 19	34 31 17	32 29 18	27
I	12.0 10.5 9.0 7.5 6.0 4.5 3.0 1.5	15 13 9 8 6 5 3 2	16 11		7	10 1	12	14 4

SHG : Self Help General
SHE : Self Help Eating
SHD : Self Help Dressing
SD : Self Direction
SOC : Socialization
OCC : Occupation
COM : Communication
LOC : Locomotion

Vineland Social Maturity Scale

ANSWER AND SCORING SHEET

0-1YEAR

1.	0.7	months
2.	1.4	months
3.	2.1	months
4.	2.8	months
5.	3.5	months
6.	4.2	months
7.	4.9	months
8.	5.6	months
9.	6.3	months
10.	7.0	months
11.	7.7	months
12.	8.4	months
13.	9.1	months
14.	9.8	months
15.	10.6	months
16.	11.3	months
17.	12.0	months

1 YEAR

18.	0.7	months
19.	1.4	months
20.	2.1	months
21.	2.8	months
22.	3.5	months
23.	4.2	months
24.	4.9	months
25.	5.6	months
26.	6.3	months
27.	7.0	months
28.	7.7	months
29.	8.4	months
30.	9.2	months
31.	9.9	months
32.	10.6	months
33.	11.3	months
34.	12.0	months

2 YEARS

35.	1.2	months
36.	2.4	months
37.	3.6	months
38.	4.8	months
39.	6.0	months
40.	7.2	months
41.	8.4	months
42.	9.6	months
43.	10.8	months
44.	12.0	months

3 YEARS

45.	2	months
46.	4	months
47.	6	months
48.	8	months
49.	10	months
50.	12	months

4 YEARS

51.	2	months
52.	4	months
53.	6	months
54.	8	months
55	10	months
56.	12	months

5 YEARS

57.	2.4	months
58.	4.8	months
59.	7.2	months
60.	9.6	months
61.	12.0	months

6 YEARS

62.	3	months
63.	6	months
64.	9	months
65.	12	months

7 YEARS

66.	2.4	months
67.	4.8	months
68.	7.2	months
69.	9.6	months
70.	12.0	months

8 YEARS

71.	3	months
72.	6	months
73.	9	months
74.	12	months

9 YEARS

75.	4	months
76.	8	months
77.	12	months

10 YEARS

78.	3	months
79.	6	months
80.	9	months
81.	12	months

11 YEARS

82.	4	months
83.	8	months
84.	12	months

12 YEARS

85.	7.2	months
86.	14.4	months
87.	21.6	months
88.	28.8	months
89.	36.0	months

DEVELOPMENTAL SCREENING TEST

(Bharatraj)

		M	D
	birth cry present*		13
	equal bilateral movements		26
	responds to bell		39
	vocalises sounds*		52
	smiles spontaneously		65
	eyes follow moving object		78
3 M	head steady		90
	reaches for objects		15
	laughs aloud*		30
	recognises mother		45
	vocalises for pleasure/babbles*		60
	carried objects to mouth		75
6 M	rolls over		90
	imitates speech sounds*		23
	sits by self		46
	thumb finger grasp		68
9 M	shows curiosity		90
	says 3 words, 'dada','mama' etc*		23
	stands alone well		46
	follows simple instructions*		68
1 Y	cooperates for dressing		90
	many intelligible words*	1	15
	walks, runs well	3	
	indicates wants	4	15
1 Y	scribbles spontaneously	6	
	says sentences of 2/3 words*	1	15
	points out objects in pictures	3	
	shows body parts	4	15
2 Y	participates in play	6	
	copies O	2	
	relates experiences*	4	
	knows names, uses of common objects	6	
	begins to ask 'why'?*	8	
	takes food by self	10	
3 Y	toilet control present	12	
	buttons up	2	12
	comprehends 'hunger','cold'*	4	24
	plays cooperatively with children	7	6
	repeats 3 digits*	9	18
4 Y	tells stories*	12	
	defines words*	2	
	makes simple drawings	4	
	dresses with no supervision	6	
	describes actions in pictures*	8	
	gives sensible answers to questions*	10	
5 Y	goes about neighbourhood	12	
	can name primary colour	2	12
	plays games governed by rules	4	24
	writes simple words*	7	6
	gains admission to school	9	18
6 Y	enjoys constructive play	12	
	adapts to home, school	2	12
	tells differences of objects	4	24
	spells, reads, writes simple words	7	6
	enjoys group play	9	18
7 Y	knows comparative value of coins	12	
	combs hair by self	3	
	makes small purchases	6	
	competition in school/play	9	
8 Y	tells time	12	
	tells day, month, year*	2	
	reads on own initiative*	4	
	recognises property rights	6	
	favourite of fairy tales*	8	
	muscle coordination games (marbles)	10	
9 Y	bathes self unaided	12	
	cooperates keenly with companions	2	12
	has various hobbies, collections	4	24
	goes about town freely	7	6
	sex differences in play become marked	9	18
10 Y	can stay away from home	12	
	writes occasional short letters*	3	
	comprehends social situations	6	
	physical feats liked	9	
11 Y	able to discuss problems*	12	
	enjoys books, newspapers, magazines*	4	
	more independent in spending	8	
12 Y	capable of self criticism	12	
	shows foresight, planning, judgement	2	12
	learns from experience	4	24
	plays difficult games	7	6
	interested in dressing up	9	18
13 Y	understands abstract ideas (Justice)	12	
	makes sensible plans for future (job)	4	24
	follows current events*	9	18
	buys own clothing	1Y 2	12
	systematises own work	1Y 7	6
15 Y	purchases for others	2Y	

Gessel Developmental Schedules

The Gessel Developmental Schedules (GDS) represent a standardized procedure for observing and evaluating the course of development in child's daily life. It consists of selected items for assessing maturity in infants and preschool children in the following four major developmental areas.

1. Motor Development: includes both gross bodily control and finer motor coordination like head balance, postural reactions and locomotion.

2. Adaptive Behaviour: includes perceptual, orientational, manual and verbal adjustments which reflect the child's capacity to initiate and profit from past experience.

3. Language Development: includes all means of communication such as facial expression, gestures, postural movements and vocalizations.

4. Personal-Social Behaviour: includes the child's personal reactions to others play behaviour, social smile, feeding and toilet training.

GDS provides an estimate of Developmental Age (DA) and Developmental Quotient (DQ). It is a useful tool in developmental diagnosis and in identification of behavioural abnormalities and mental retardation. GDS can be used for the age range of 1-72 months.

Data on GDS items should be obtained through direct observation of the child's responses and supplemented by information gathered from the mother.

Any item on the Developmental Schedule if adequately performed by the child, should be checked with a right ( ) sign. A wrong (x) sign should be used whenever the child fails to perform. In scoring a child's performance on developmental examination, several adjacent age levels should be rated until the aggregate of signs changes to an aggregate of X signs. The estimate of developmental status is based on the distribution of right and wrong signs.

Find out overall DA and the DA for each of the four developmental areas. Compute DQ by divinding DA by CA and multiplying by 100. Add all DAs and compute the average to obtain overall DQ.

Gessel Developmental Schedules

RECORD FORM

1. Name of the child
2. Father's name
3. Mother's name

5. Date
6. Sex
7. Date of birth
   Year _____ Month _____ Day _____
8. Age of the child
   Years _____ Months _____ Days _____

RESULTS

Developmental Levels

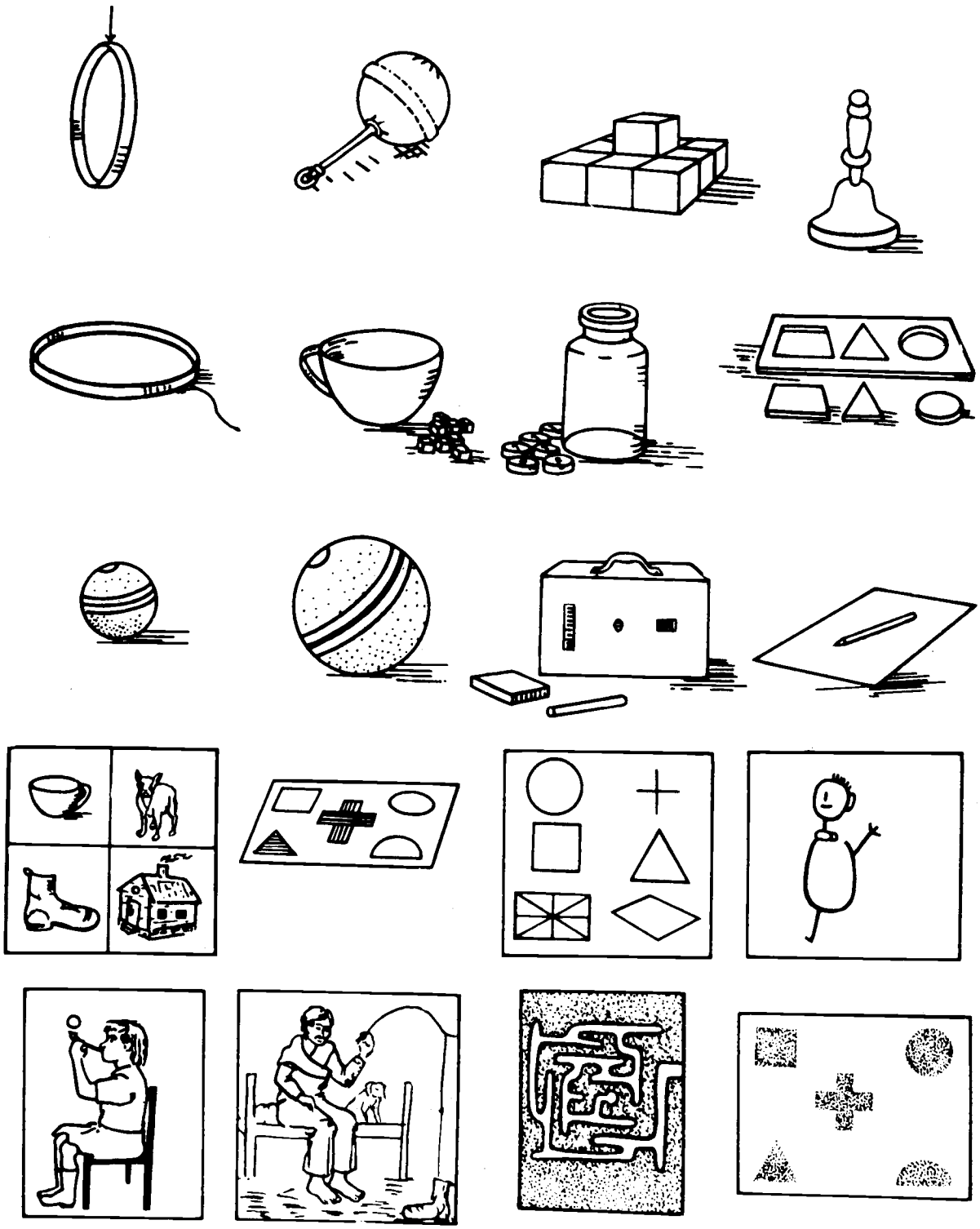
S.No.	Developmental Areas	DA	DQ
1.	Motor Development		
2.	Adaptive Behaviour		
3.	Language Development		
4.	Personal-Social Behaviour		

Overall Developmental Age (DA):

Overall Developmental Quotient(DQ) = $\frac{DA}{CA}$ x 100:

Remarks

Signature of the Psychologist.



MOTOR

ITEMS	4 WEEKS	16 WEEKS	28 WEEKS	40 WEEKS	12 MONTHS
SUPINE	Side position head predominates	Mid position head predominates	Lifts head		
	Tonic-neck-reflex posture predominate	Symmetrical postures predominate			
	Both hands fisted	Hands engage			
	Rolls partway to side	Fingers, scratches, clutches			
PRONE	Head droops, ventral suspension				
	Placement, head rotates				
	Lifts head momentarily to Zone-I	Head in Zone-III, sustained			
	Crawling movements	Legs extended or semi extended		Creeps	
		Verge of rolling			
SITTING	Head predominantly sags	Head steady, set forward	Briefly leans forward on hands	Goes to prone	
			Erect momentarily	Indefinitely steady	
STANDING			Sustains large fraction of weight	Pulls to feet at rail	
			Bounces actively		
WALKS					Needs only one hand held

MOTOR

ITEMS	4 WEEKS	16 WEEKS	28 WEEKS	40 WEEKS	12 MONTHS
RATTLE	Hand clenches on contact				
D.RING		Retains			
RING-STRING				Plucks string easily	
CUBE			Radial palmar grasp	Crude release	
PELLET			Rakes, contacts	Grasps promptly	
				Inferior pincer grasp	

GESELL DEVELOPMENTAL SCHEDULES

ADAPTIVE

ITEMS	4 WEEKS	16 WEEKS	28 WEEKS	40 WEEKS	12 MONTHS
RATTLE	Drops immediately		Shakes definitely		
D.RING/ RATTLE	Regards line vision only	Regards immediately			
		Regards in hand			
D. RING	Follows to midline	Free hand to midline			
		To mouth			
D. RING/ RATTLE/ CUBE/CUP		Arms activate			
D. RING/ CUBE			Transfers		
BELL (RINGING)	Attends, activity diminishes				
BELL			Bangs	Grasps by handle	
			Transfers adeptly	Spontaneously waves or shakes	
			Retains		
BELL/ RATTLE			One hand approach and grasp		
CUBE/CUP		Looks from hand to object			

GESELL DEVELOPMENTAL SCHEDULES

ADAPTIVE

ITEMS	4 WEEKS	16 WEEKS	28 WEEKS	40 WEEKS	12 MONTHS
CUBE			Holds one, grasps another		
			Holds two, more than momentarily	Matches two cubes	(Demonstration) tries tower, fails
CUP & CUBE				Touches cube in cup	Release one cube in cup
PELLET				Index finger approach	
PELLET IN BOTTLE		Regards		Regards pellet if drops out	
PELLET & BOTTLE				Approaches pellet first	
				Grasps pellet	Tries to insert, releases, fails
RING-STRING					Dangles ring by string
FORM BOARD					Looks selectively at round hole

LANGUAGE

ITEMS	4 WEEKS	16 WEEKS	28 WEEKS	40 WEEKS	12 MONTHS
EXPRESSION	Impassive face				
	Vague, starey & indirect regard	Excites, breathes heavily, strains			
VOCALIZATION	Small throaty noises	Laughs aloud	Crying (m-m-m)	Dada and Mama	
			Pollysyllabic vowel sounds	One word	Two words
COMPRE-HENSION					Gives a toy on request

GESELL DEVELOPMENTAL SCHEDULES

PERSONAL - SOCIAL

ITEMS	4 WEEKS	16 WEEKS	28 WEEKS	40 WEEKS	12 MONTHS
SOCIAL	Regards examiner's face, activity diminishes	Spontaneous social smile			
		Vocalizes or smiles pulled to sit		Waves bye-bye or equivalent	
FEEDING	Require night feedings	Anticipates on sight of food	Takes semi-solid or solids well		
		Sits propped 10-15 minutes			
PLAY		Hand play, mutual fingering	With feet to mouth		
		Pulls dress over face			
MIRROR			Reaches, pats image		Ball to mirror
RING-STRING			Fusses or abandons effort		
DRESSING					Co-operates in dressing

MOTOR

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
STANDING					Tries to stand on 1 foot	Stands on 1 foot mom. balance	Stands on 1 foot for 2 sec.	Stands on 1 foot 4-8 sec.		Stands on 1 foot more than 8 sec.	Stands on each foot alt. eyes closed
WALKING & RUNNING	Has discarded creeping		Squats in play								
	Walks few steps, starts & stops	Walks fast,runs stiffly (F)		Runs without falling	Walks on tiptoe on demon-stration						
	Falls by collapse (F)	Seldom falls									
SKIPS								Skips on 1 foot	Hops on 1 foot	Skips using feet alter-natively	
JUMPS					Jumps with both feet	Jumps from bottom stair		Jumps running or broad jump			Jumps from ht. 12" landing on toes only
STAIRS	Creeps up full flight	Walks up 1 hand held	Walks down, hand held	Walks up & down alone		Alternate feet going up		Walks down, a foot to a step			
		Up & down unassisted, any method	Walks up, holding rail								

MOTOR

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
WALKING BOARD							Walks on with both feet	Walks 6 cms. board, touching ground once to balance		Walks 6 cms. board without stepping off	Walks length of 4 cms. board
CHAIR		Seats self									
		Climbs into	Gets down, no help								
CUBES	Tower of 2		Tower of 5-6	Tower of 6-7	Tower of 8						
PELLET & BOTTLE	Inserts in bottle					10 in bottle (30 sec.)		10 in bottle (25 sec.)		10 in bottle (20 sec.)	
BOOK	Helps turn pages	Turns pages 2-3 at a time		Turns pages singly							
PAPER			Folds once imita-tively								
BALL		Hurls						Throws overhand			Advanced throwing
LARGE BALL		Walks into (F)	Kicks on demon-stration	Kicks							
DRAWING					Holds crayon by. fingers		Traces diamond		Traces cross		Copies diamond
ARTI-CULATION									No longer infantile		

GESELL DEVELOPMENTAL SCHEDULES

ADAPTIVE

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
CUBES	Tower of 2	Tower of 3-4	Tower of 5-6	Tower of 6-7	Tower of 8	Tower of 9 (10 on 3 trials)					
			Imitates pushing train	Aligns-2 or more, train	Adds chimney	Imitates bridge	Builds bridge from model	Imitates gate	Makes gate from model	Builds 2 steps	Builds 3 steps
CUP & CUBES	6 in & out of cup (F)	10 in cup									
PELLET & BOTTLE		Dumps responsively				10 in bottle (30 sec.)		10 in bottle (25 sec.)		10 in bottle (20 sec.)	
DRAWING		Scribbles spontaneously									
STROKES	Incipient imitation stroke	Makes stroke imitatively		Imitates vertical stroke	Imitates vertical & horizontal						
				Imitates circular stroke	2 or more strokes for cross (F)	Imitates cross					
COPIES						Copies circle		Copies cross	Copies square	Copies triangle	Copies diamond
										Rectangle with diagonals	

GESELL DEVELOPMENTAL SCHEDULES

ADAPTIVE

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
OWN DRAWING						Names own drawing		Man with 2 parts		Man with body, arms, legs, feet, nose, mouth, eyes	Man-neck, hands on arms, clothes
											Man's legs are 2 di-mensional
INCOM-PLETE MAN						Names		Adds 3 parts		Adds 7 parts	Adds 9 parts
BUBBLES								One bubble	3 bubbles	1,2,3,4, bubbles	
FORM BOARD	Places round block	Piles 3 (F)	Places 2/3	Places blocks on board sepa-rately (F)	Places 3 blocks on pre-sentation						
	Adapts round block			Adapts in 4 trials	Adapts repetedly, error (F)	Adapts, no error or correction or error					
PER-FORMANCE BOX			Inserts corner of square (F)	Inserts square							
			Retrives ball from								
PAPER			Folds once imita-tively					Folds & creases 3 times on demon-stration			

GESELL DEVELOPMENTAL SCHEDULES

ADAPTIVE

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
COLOUR FORMS					Places-1	Places-3					
GEOMETRIC FORMS						Points to 4	Points to 6	Points to 8	Points to 9 of 10		
MISSING PARTS								1 correct	2 correct		All correct
									Makes aestnetic comparison		
DIGITS					Repeats 2, 1 of 3 trials	Repeats 3, 1 of 3 trials	Repeats 3, 2 of 3 trials		Repeats 4, 1 of 3 trials		4 correct 2 of 3 trials
COUNTS								Pointing 3 objects	4 objects	10 objects	
										12 objects (66 ms)	
										Gives correct number of fingers, separate hands	Correct number of fingers single hand & total
											Adds & subtracts within five

GESELL DEVELOPMENTAL SCHEDULES

ADAPTIVE

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
WEIGHTS							Gives heavy block (2 of 3 trials)	Selects heavier (3 of 3 trials)		5 Weights, 1 error	5 Weights no error
SENTENCES				Repeats 3-4 syllables		Repeats 6-7 syllables		Repeats 1 of 3 (12, 13 syllables)			

LANGUAGE

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
VOCA-BULARY	4-6 Words/ names	10 Words including names	20 Words								
SPEECH	Uses Jargon		2-3 words sponta-neously	Discarded jargon		Uses plurals					
				3-Word sentences							
				Uses I, Me, You							
NAME & SEX					Full Name	Tells sex					
BOOK	Pats picture (F)	Looks selec-tively				Gives action					
PICTURE						Enume-rates 3 objects				Describes 2 of 3	
PICTURE CARDS	Points Dog/ Shoe	Names/ points one		Names 3/ more	Names 5	Names 8	Names all				
				Identi-fies 5/more	Identi-fies 7						
COLOUR CARDS								Names 1		Names Colours	
BALL		2 Directions	3 Directions	4 Directions							

GESELL DEVELOPMENTAL SCHEDULES

LANGUAGE

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
TEST OBJECTS		Names ball		Names 2	Gives use					Names 5 paisa, 10 paisa, 25 paisa.	
COMPRE-HENSION						A: Answers one	A: Answers two		B: 1 correct	B: 2 correct	
DIRECTION						Obeys 2 prepo-sitions	Obeys 3 prepo-sitions	Obeys 4 prepo-sitions		3 Commi-ssions	
ACTION AGENT						7 correct	9 correct	13 correct	14 correct	15 correct	
DEFINITION									Uses: 4 correct (F)		

PERSONAL - SOCIAL

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
FEEDING	Discarded bottle	Partly self feeding spilling				Self feeding with little spilling					
	Inhibits grasp of dish	Hands empty dish	Handles glass, lifts, drinks, replaces			Pours well from pitcher					
TOILET	Partial regula-tion	Regulated day time		Dry at night if taken up							
	Indicates wet under-wears			Verbalizes toilet needs							
	Bowel control										
DRESSING							Washes & dries hands or face	Brushes teeth			
				Pulls on simple garments		Unbuttons		Dresses or undresses if supervised		Dresses or undresses without assistance	
								Disting-uishes front & back of clothes			

PERSONAL-SOCIAL

ITEMS	15 MONTHS	18 MONTHS	21 MONTHS	24 MONTHS	30 MONTHS	36 MONTHS	42 MONTHS	48 MONTHS	54 MONTHS	60 MONTHS	72 MONTHS
COMMUNI-CATION	Says 'ta ta' or equivalent		Echoes 2/more last words	Refers to self by name	Refers to self by pronoun	Asks questions rhetorically			Calls attention to own performance	Asks meaning of words	Recites numbers up to thirties
	Indicates wants		Asks for food, drink toilet	Verbalizes immediate experiences	Repetitiveness in speech	Knows a few rhymes			Relates fanciful stories		Knows right left or complete reversal
			Pulls person to show	Comprehends & asks for another		Understands taking turns			Boses & criticizes others		Differentiates A.M. & P.M.
PLAY	Shows or offer toys	Pulls a toy		Hands full cup of Cubes to E	Pushes a toy with good force						
	Casts objects playfully	Carries or hugs doll		Plays with domestic mimicry	Helps put things away			Building with blocks		Can print a few letters	
				Parallel play predominates	Carry breakable objects		Associative group play	Plays cooperatively with other children	Shows off dramatically	Oresses up in grownups clothes	
OEVELOP-MENTAL OETACH-MENT								Goes on errands outside home			
								Tends to go out of bounds			

NIMH Developmental Screening Test

Name :

Number :

Date of birth :

Date :

Sex: Male/Female

S.No.	Developmental milestones	Pass : Yes/No	When achieved
1.	Head steady		
2.	Sits without support		
3.	Stands without support		
4.	Walks well		
5.	Smiles at others		
6.	Responds to name or voice		
7.	Talks in 2/3 words sentences		
8.	Tells name		
9.	Self feeding		
10.	Toilet control		

Note : Please if passed

Please X if not passed.

Items from Behaviour Rating Scale of AAMR

All the items grouped under 10 sub categories as given below, should be rated as N, O or F (N = Never, O = Occasionally and F = Frequently)

1. VIOLENT BEHAVIOUR TOWARDS OTHERS
    1. Threatens/physical violence
    2. Pushes others
    3. Pinches others
    4. Spits/smears saliva at others
    5. Pulls hair/ear/body parts of others
    6. Bites others
    7. Kicks others
    8. Hits/slaps others
    9. Chokes others
    10. Attacks with weapons
    11. Throws objects at others
    12. Pokes body parts of others
2. DESTRUCTIVE BEHAVIOURS
    1. Tears/Pulls threads from clothing
    2. Soils property (urination/ defecation)
    3. Tears up books/paper/ magazines
    4. Breaks objects/glass
    5. Damages possessions/toys
    6. Damages furniture
    7. Damages personal belongings/ other belongings/both
3. DISRUPTIVE BEHAVIOURS
    1. Pulls objects from others
    2. Does not allow others to carry on their own activities
    3. Makes loud noises when others ar working/ reading/talking etc.
    4. Takes other possessions without their permission
    5. Crying excessively
    6. Screaming/Yelling
    7. Slamming doors
    8. Banging objects
    9. Stamping feet/Jumping up and down
    10. Kicking legs while on floor/ rolling on floor

Situations when it is commonly observed:

4. SELF-INJURIOUS BEHAVIOURS
    1. Head banging
    2. Biting self
    3. Cutting self
    4. Pulling own hair

5. Picking at wounds on own body

6. Scratching/Rubbing self

7. Beating self

8. Putting objects into eyes/nose/ears

9. Eating food excessively

10. Eating unedible objects

5. REPETITIVE/STEREOTYPED BEHAVIOURS

1. Thumb sucking/putting fingers into mouth

2. Nail biting

3. Nose picking

4. Teeth grinding

5. Head nodding

6. Body rocking

7. Tapping feet continuously

8. Waving hands/Body parts continuously

9. Swinging round and round

10. Jumping up and down

11. Does the same activity over and over again

6. ODD BEHAVIOURS

1. Laughs to self/laughs inappropriately

2. Talks to self loudly

3. Makes peculiar/unpleasant sounds

4. Mimics words (Echolalia)

5. Mimics gestures (Echopraxia)

6. Smears dirt/faeces on self

7. Plays with unacceptable objects excessively

(Clothes, chappals, strings, faeces, water, dirt, etc.)

8. Hoarding unacceptable objects

9. Touching others unnecessarily

10. Standing close to people

11. Talking irrelevantly

12. Kisses/Hugs/Shakes hands/Licks people unnecessarily

7. ANTISOCIAL BEHAVIOURS

1. Lies

2. Steals

3. Makes obscene gestures

4. Undresses in front of others

5. Makes sexual overtures to members of the opposite sex

6. Gambling

7. Masturbation in front of others

8. Using vulgar/abusive language

8. WITHDRAWAL BEHAVIOURS

1. Sits/stands/lies down for long periods of time without doing anything
2. No eye to eye contact
3. Does not talk spontaneously to others
4. Stares blankly
5. Does not give replies to questioning
6. Hides face in group situations
7. Sits with feet up/body curled up
8. Does not respond to calling by name even though hearing is normal
9. Avoids the company of people

9. REBELLIOUS BEHAVIOURS

1. Refuses to follow (comply with) given instructions
2. Breaks rules
3. Refuses to participate in regular activities at home/ school/work
4. Refuses to perform regular routine on time. (eating, waking, dressing, sleeping, etc.)
5. Refuses to attend to personal hygiene and self-care
6. Does opposite of what is requested
7. Refuses to pay attention when called/spoken to
8. Takes very long time intentionally to complete tasks
9. Talks rudely/becomes argumentative

uations when it is commonly erved:

10. HYPERACTIVE BEHAVIOURS

1. Talking excessively
2. Wandering away from home/school
3. Pulling objects around him and messing the place
4. Pacing up and down/running about the place
5. Inability to sit at a place for 5 minutes continuously