NETAJI SUBHAS OPEN UNIVERSITY

B. Ed. Spl. Ed. (M.R./H.I./V.I.)-ODL

MENTAL RETARDATION / INTELLECTUAL DISABILITY

C-12 (M.R.)

B. Ed. Spl. Ed. (M. R. / H. I. / V. I)-
ODL Programme

AREA - C

C-12 : ASSESSMENT AND IDENTIFICATION OF NEEDS [MENTAL RETARDATION/ INTELLECTUAL DISABILITY]

A COLLABORATIVE PROGRAMME OF
NETAJI SUBHAS OPEN UNIVERSITY
AND
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AREA - C ● DISABILITY SPECIALISATION COURSES

COURSE CODE - C-12 M. R./I. D.

ASSESSMENT AND IDENTIFICATION OF NEEDS

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The Self Instructional Material (SIM) is prepared keeping conformity with the B.Ed.Spl. Edn.(MR/HI/VI) - ODL Programme as prepared and circulated by the Rehabilitation Council of India, New Delhi and adopted by NSOU from the 2015-2017 academic session.

Dr. Ashit Baran Aich
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From the Vice-Chancellor's Desk

Dear Students, from this Academic Session (2015-17) the Curriculum and Course Structure of B. Ed.- Special Education have been thoroughly revised as per the stipulations which featured in the Memorandum of Understanding (MoU) between the Rehabilitation Council of India (RCI) and the National Council for Teacher Education (NCTE). The newly designed course structure and syllabus is comprehensive and futuristic has, therefore, been contextualized and adopted by NSOU from the present academic session, following the directives of the aforesaid national statutory authorities.

Consequent upon the introduction of new syllabus the revision of Self Instructional Material (SIM) becomes imperative. The new syllabus was circulated by RCI for introduction in the month of June, 2015 while the new session begins in the month of July. So the difficulties of preparing the SIMs within such a short time can easily be understood. However, the School of Education of NSOU took up the challenge and put the best minds together in preparing SIM without compromising the standard and quality of such an academic package. It required many rigorous steps before printing and circulation of the entire academic package to our dear learners. Every intervening step was meticulously and methodically followed for ensuring quality in such a time bound manner.

The SIMs are prepared by eminent subject experts and edited by the senior members of the faculty specializing in the discipline concerned. Printing of the SIMs has been done with utmost care and attention. Students are the primary beneficiaries of these materials so developed. Therefore, you must go through the contents seriously and take your queries, if any, to the Counselors during Personal Contact Programs (PCPs) for clarifications. In comparison to F2F mode, the onus is on the learners in the ODL mode. So please change your mind accordingly and shrug off your old mindset of teacher dependence and spoon feeding habits immediately.

I would further urge you to go for other Open Educational Resources (OERs) - available on websites, for better understanding and gaining comprehensive mastery over the subject. From this year NSOU is also providing ICT enabled support services to the students enrolled under this University. So, in addition to the printed SIMs, the e-contents are also provided to the students to facilitate the usage and ensure more flexibility at the user end. The other ICT based support systems will be there for the benefit of the learners.

So please make the most of it and do your best in the examinations. However, any suggestion or constructive criticism regarding the SIMs and its improvement is welcome. 1 must acknowledge the contribution of all the content writers, editors and background minds at the SoE, NSOU for their respective efforts, expertise and hard work in producing the SIMs within a very short time.

Professor (Dr.) Subha Sankar Sarkar
Vice-Chancellor, NSOU

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Netaji Subhas Open University

AREA - C
C-12 : ASSESSMENT AND IDENTIFICATION OF NEEDS

C-12 ❐ Assessment and Identification of Needs

Unit - 1 ❐ Intellectual Disability—Nature and Needs

Structure :

1.1 Introduction

Intellectual Disability (ID), once called Mental Retardation, is characterized by below-average intelligence or mental ability and a lack of skills necessary for day-to-day living. People with intellectual disabilities can and do learn new skills, but they learn them more slowly. There are varying degrees of intellectual disability intellectual disability has limitations in two areas. These areas are *Intellectual functioning.* Also known as IQ, this refers to a person's ability to learn, reason, make decisions, and solve problems *Adaptive behaviors.* These are skills necessary for day-to-day life, such as being able to communicate effectively, interact with others, and take care of oneself. Historically, the person affected by Intellectual disability have experienced varied treatment ranging from abandoning them to providing them equal opportunities like non -disabled persons. The definitions have undergone changes based on the trend of the day.The various definitions also will be discussed.

The word "Etiology means causation. Knowledge of the causative factors of intellectual disability is important. Intellectual disability can be caused by any condition that impairs development of the brain before birth, during birth or in the childhood

years. Several hundred causes have been discovered, but in about one- third of the people affected, the cause remains unknown.

There are varying degrees of intellectual disability, depending on the extent of damage to the brain in the individuals. Here we will see how they are classified based on certain yard sticks .Medical classification, go by causes/etiology, psychological classification are made based on IQ. The educational goes by potentials of the persons with intellectual disabilities.

With the implementation of the Persons withDisabilities Act (PWD), 1995 intellectual disabilities has been recognized as a disability with an identity of its own. Earlier, data on mental retardation had been clubbed with data on mental illness. It is only in the recent years that early identification of persons with mental retardation has become possible. Systematic thinking on screening and identification emerged consequent to the National Policy on Education (NPE), 1986, even though working groups had been set up even as early as 1981 during the International Year of the Disabled Persons (IYDP) by the then Ministry of Welfare. Early identification includes screening, early diagnosis and parent counseling.

1.2 Objectives

After studying this unit you will be able to:

- Narrate the historical perspective of Intellectual Disability
- Understand definition as they evolved
- Define mental retardation
- Understand the causes and prevention of MR
- Explain the classification of MR.
- Understand different screening methods.
- Understand needs of PWDS.

1.3 Historical perspective of Intellectual Disability (ID)

History of Intellectual Disability

Identification of persons with mental retardation and affording them care and management for their disabilities is not a new concept in India. The concept had been translated into practice over several centuries as a community participative

culture. The status of disability in India, particularly in the provision of education and employment for persons with mental retardation, as a matter of need and above all, as a matter of right, has had its recognition only in recent times, almost after the enactment of the Persons with Disabilities Act(PWD), 1995. As years passed by "the right to live received recognition and importance. However they were considered as menace to the society requiring segregation from the community and requiring close cutodial supervision. Thus came upthe institutional care.The persons with mental retardation were segregated from family and community and put institution for 24 hours total care.

History of intellectual disability in India

- As early as the Ramayana period (around 5000BC) we have a reference to intellectual disability.Queen kaikayi's maid Mantara was dull witted and thus easily duped .The concept of problems was mentioned first in Atharva veda.
- A much older system of philosophy the Sankya,contain a statementon different types of intellectual disabilities.
- The Garba upanishad (around 1000 BC) a treatise on embryology,suggests that babies with defects are "born to those parents whose minds are distressed."
- Differential diagnosis among vanous sorts of odd behavior has always been hard, but are more redily recognizable " childish mind" model for intellectual disability appeared in a riddle of the Upanishads compiled perhaps in 500BC.
- A careful study of the ancient Indian literature reveals that there have been a few references to persons with intellectual disability. In the mythology of patanjali, we read that patanjali had to teach Goudapathaga, who was a dull headed persons.
- The Patanjali yoga sutras deal with yoga as a therapy. A careful reading of these sutras reveal that persons with mental retardation have also been taken into consideration for this therapy.
- The grate physician charaka has given various causes for intellectual disability and discusses the different types and classification.
- Clear reference to persons with intellectual disability can be traced in the Sangam literature (200BC-200AD) by Erayanar and Avvaiyar and more recently by Thiruvalluvar.

- In the 4th century BC, Kautilya banned the use of terms insulting persons with disabilities. He employed many people with disabilities in his spy network.
- King Amarsakti had three sons viz, Vasusakti, Ugrasakti and Anekasakti, who were greater fools or ‘‘supreme block-head’’. This folly caused their father's courtier Vishnu Sharma to devise the world's first special education text Panchatantra, around the Ist century Be. Basham remarks "Never was a school text book better written"
- Ancient Hindu, Buddhist and Sanskrit text treat idiocy like other birth handicaps, arising through sin in an earlier incarnation .According to Manu, the Law Giver, that as a consequence of a remnant of the guilt of formar crimes , as persons are idiots ,dumb,blind, deaf and deformed,all despised by the virtuous.
- The Buddhist Mantalsi Jatakar recounts an early attempt to teach "the profound dullards" by activity methods and practical curriculum, but he did not succeed .Later some teachers did persevere so that the unfit rather than being weeded out might end up with more time at school than the clever ones.
- Arthasatra mentions treatment and care given to people with disabilities at mattas (monasteries) and in the time of Ashoka, at the hospital at Pataliputra.Sinhalese asylums for people with disabilities were set up by the centuty in what is now SriLanka.

History of special Education in western countries:

Introduction from Ancient times to 1200AD

The subject of mental retardation has been neglected in ancient writings but there is enough evidence in historical records to show it existed. The causes were then as now congenital, chromosomal, inter uterine damage, premature or protracted birth, or infections and accidents in infancy and childhood. Infant mortality was high and most children with Downs Syndrome, cerebral palsy or other disability where there was a weakened resistance to infection would have succumbed early to pulmonary infections, heart defects and gastroenteritis.

However, some would have survived, like children who had a mental disability but no physical impairments. At a time when most people lived by agriculture, herding sheep and goats, or fishing, and reading and writing were unnecessary, moderate intellectual disability would not have been important. People with disabilities, whether physical or mental disabilities were treated in different ways according to

where they lived. Some parts of the Talmud advocated disability as a holy state and a means of getting to heaven and similar sentiments were expressed towards those who helped disabled people. At the heart of Jewish law was the idea that every human being newborn or adult, deformed or healthy, slave or free was made in the image of God. Abortion and infanticide were condemned while pagan religions sanctioned, condoned and encouraged the killing of malformed or sick infants.

Plato stated that pregnant women over the age of forty years should have an abortion and Aristotle recommended both infanticide and abortion if there was a risk of a deformed child. He supported a law to ensure the compulsory exposure of all malformed babies who were abandoned with their ankles pinned together. The birth of a retarded child was interpreted by the Greeks as a punishment inflicted on its parents by the gods. Rearing a sick or disabled child was economically burdensome and unprofitable.

In Sparta, racial homogeneity was prized. Citizens had to be physically strong and mentally able. There was a legal requirement to abandon deformed and sickly infants. Babies were left to perish on a mountainside or thrown into a chasm. If the disability was not obvious at birth, but the child was later found to be an "idiot" the child would be abandoned. And left to fend for itself, Meanwhile the Celts had a much more enlightened attitude. The social order was based on community, democracy and individual rights. Each clan or tribe occupied its own territory, and this was divided into three sections. The clan leader and his family had one section, another was set aside for the use of the poor, sick and disabled and the largest section was common ground for the whole tribe. Members working their own plots paid taxes which were used for the upkeep of the community and to support the poor, the sick and the aged. The Celts had hostels, orphanages and hospitals. Ancient Celtic laws show there was a well-developed medical service and that each individual tribe was responsible for caring for the sick, the wounded and those with mental handicaps. The Celts covered territory from Ireland to Hungary, from Sweden to Spain.

Early Roman law gave power to the father to have absolute rights over his children. He could expose any female infant or a child of either sex who was deformed or disabled. Soranus a physician in the 1ST and 2nd centuries AD wrote the earliest known treatise on gynecology and in it he had a chapter entitled How to recognize the Newborn that is worth rearing. He gave a quite scientific and detailed analysis of the various medical examinations which should take place.

Some mentally retarded people would have received asylum in sanctuaries as

did other groups in the ancient world. However feeble minded and mentally disabled people had their political rights curtailed and would not have been granted Greek or Roman citizenship.

As Christianity spread, a far more compassionate view was taken of people with disabilities of any kind. Charity towards people with disabilities and illnesses was preached and the Church set up orphanages for abandoned children in the 3rd and 4th centuries and the earliest hospital was founded by St Fabiola in Rome in 399 AD.St Nicholas, the Bishop of Myra showed particular compassion towards mentally retarded children and urged giving them tender care.

In the Islamic world from the seventh century, feebleminded people were treated with respect. There was a belief that their minds were in heaven while their body moved around amongst ordinary mortals. ot all people we would think of as mentally disabled were thought to have any disability, but rather to be special individuals who were favoured by Heaven.

Little was known about the causes of mental handicap, and medicine was based on "humours" and a close link between the body, mind and soul. Europe was still in the Dark Ages of science and medicine but in the Islamic world Avicenna 980-1037) wrote a textbook the Canon of medicine in which he mentioned hydrocephalus, meningitis and other mental disorders. He recognized and defined various levels of intellectual functioning and knew that brain injury could affect memory and speech. There were mental hospitals in Cairo and Baghdad in the 11 th and 12th centuries. Ibn Al-Baitar also wrote about mental disabilities during the first half of the thirteenth century.

From the time of the end of the Roman Empire in Europe until the late middle ages, life remained very rural By 1066 England had a population of less than one million. The majority lived in villages and hamlets surrounded by forests and marshes. Agriculture was the main occupation and the most powerful people were those who owned the most land. In a rural society literacy and intellectual ability were not important and every member of the family would have taken part in the daily grind of fetching water and fire-wood, ploughing the fields, or feeding the animals. Disabled people would have relied on relatives for their care but with poverty, malnutrition, poor hygiene and a feudal system life would have been hard. However city life was beginning again and St Bartholomew's hospital was founded in 1142 in London. In Prussia we have a record from the 12th century which said that mentally afflicted people were put in prison. As the medieval period continued, the population gradually increased and life became more sophisticated as more people moved into towns and

the generation of wealth meant that new phenomena such as urban beggars, some of them disabled became an issue and the importance of landed wealth led to the first law defining a distinction between mentally ill people and mentally disabled people.

The Mediaeval period 1200-1450

Children with mental disabilities could be born to anyone rich or poor. Medieval society was based on the preserving and transfer of landed wealth. If the heir to property were mentally disabled, the King wanted to make sure that he was protected during his life time (or her lifetime) and that the property then went to the rightful successor.

During the second half of the 13th century a law was passed. It distinguished between "natural fools", people who were mentally disabled from birth and those who had a mental illness and might recover or have periods of lucidity. The King used to "contract out" care of mentally disabled people to private individuals. In fact often private individuals would tell the king about a mentally disabled person so that they might get custody it was a private but monitored guardianship. They would pay the King a lump sum called a fine and annual rents and they would enjoy the revenue from the land and provide the person with the necessities of life until they died and the land passed to their heirs For a mentally ill person, especially one who had periods of lucidity they had to be kept at the economic level suited to his rank and the guardian could not have the surplus revenues. If f they recovered the guardian no longer looked after the estate.

A record of an Examination of Emma de Beston in Cambridge 1383.exists.Emma was asked whence she came, said she didn't know. She knew there were seven days in the week but could not name them. She said she had had 3 husbands but couldn't name one. She was asked how many shillings there were in 40 pence. She did not know. Asked if she would take 40 silver groats or 40 pence she said they were the same value. They found she was not of sound mind having neither sense nor memory nor sufficient intelligence to manage herself her lands and her goods. By inspection she had the face and countenance of an idiot .Because of this 80% of cases coming to the court described the heir as a fool rather than a madman because the guardian got more revenue from a fool. When the law was changed in the 16th century the number of people described as mentally disabled coming before Courts of Wards dropped to 30% in 1640.There was no dramatic decline in mental handicap. It is simply that when it was no longer advantageous to the guardian to have custody of someone who was disabled rather than mad, more people were recognized as mentally

ill rather than mentally disabled.

Another document from the thirteenth century clearly distinguishes mentally ill from mentally disabled people. It stated that "women, serfs, people under 21, open lepers, idiots, attorneys, lunatics, deaf-mutes, those excommunicated by a bishop and criminal persons" were all barred from becoming judges.

In 1376 in Hamburg mentally retarded persons were confined to a tower in the city walls called the idiots cage. In Gheel in Belgium there was a saints shrine said to cure the mentally ill and afflicted. Many mentally handicapped and mentally ill people went there. Eventually an adult care scheme grew up where families fostered people with mental handicaps. This is still going on.

Renaissance, Reformation and Beyond 1450-1800

Many paintings of the Renaissance, show infants and children with Downs Syndrome depicted as cherubs and the infant Jesus. Various explanation have been put forward. Some have said that people with mental or physical disabilities were all part of Gods order blessed infants of their good God, and had a special place alongside popes, bishops, king's noblemen and knights. People believed they would gain the favor of God by giving help and compassion to them.

If this were true, it would have been a golden age where handicapped people were not only socially accepted but taken as models of divine and saintly beings. Unfortunately this theory is not entirely true. During the sixteenth and seventeenth century there are two views of disabled people ,either related to Satan or innocents unstained by normal and sinful human characteristics.

In 1480, a book about witches. The Mallus Malificorum was published and read widely .In some areas where there was great superstition, women who gave birth to a disabled child were sometimes killed or exiled. They believed that a baby with a deformity or mental handicap was not the baby that was born to its mother but a replacement left by fairies and demons. This view was adapted from pagan folklore and Christianized explanations of the story were that the parents were guilty of some wickedness, or that the parents loved the child more than they loved God or that the mother had been seduced by the devil. Superstition held that a disabled, or deformed child was bad luck a curse divine retribution or that disability indicated possession by the devil or was the outcome of evil-doing.

During the Middle Ages and into the 16th century people with physical defects, like hunchbacks or dwarfs, and people with simple minds were often kept as court

jesters and fools. There is a tradition that Tycho Brahe(1546-160 1) the astronomer had as a close companion an imbecile to whose mutterings the astronomer listened to as divine revelations.

Mentally disabled people would have been cared by mzny members of the family but if the breadwinner died, or the family fell on hard times they could claim relief from the parish. 17th and 18th century parish records mention people with learning disabilities describing them as idiot, stupid, innocent, witless. Different phrases like crazy or mad were used for mentally ill people. If the primary care died then person could be the legal obligation of parish .and be looked after by the Parish nurse or other parishioners. Sometimes they would receive a clothing allowance.

Bethlem or Bedlam Hospital was transferred to the City of London. In 1598 a committee appointed to inspect Bethlem found it " so loathsomely and filthy kept, not fit for any man to come into the said howse." there was an attitude that people who placed lunatics or idiots in Bedlam ought to pay for their upkeep. It was now felt that families who couldn't look after the mentally disabled person themselves should pay towards their upkeep and care elsewhere. Sometimes the mentally handicapped person was cared for in his own lodgings by a servant the beginning of private lunatic asylums.

In early 16th century the majority of hospitals were almshouses and leper houses which did not provide medical care. During the seventeenth century hospitals providing care for the sick increased in number during the eighteenth century, specialist hospitals especially lying in hospitals became more common as did institutions into which the mad were detained since madness was not seen as a medical problem, these institutions were refuges rather than hospitals in the modern sense. 1615 in a legal dictionary, "an exposition of certain difficult and obscure terms .... States "Idiot is he that is a fool natural from birth and know not how to account or number 20 pence nor cannot name his father or mother nor of what age himself is or such like easy and common matters so that it appears that he has no manner or understanding or reason nor government of himself whether it is for his profit or disproof." In the 1650 's the managers of Bedlam tried to make a distinction between the curable mad and "those dangerous to be abroad" who should be in a hospital and harmless idiots who should not befit would be necessary to certify those who were lunatic .A subcommittee was set up to identify and eject those who were idiots and not lunatic. Bedlam was rebuilt in 1676.

Segregation, Incarceration and Eugenics 1800-1945

The period from 1800- 1945 has been in many ways one of the worst for people

with mental handicaps and disabilities. Industrialization and scientific theories led to them being shut away from society and the legacy of prejudice is still with us today. This was also the period during which thousands of disabled people became the victims of mass murder by the Nazis.

There were five categories of mental illness: melancholia or delirium, mania with delirium, mania without delirium, and dementia. - The fifth was, idiotism or the obliteration of the intellectual faculties. He described a defective perception and recognition of objects, partial and total abolition of the intellectual and active facilities, This disorder may originate in a variety of causes such as excessive or enervating pleasures, the abuse of spirituous liquors, violent blows on the head, deeply impressed terror, profound sorrow, intensive study, tumors of the cavity of the cranium, apoplexy, excessive use of the lancet in the treatment of active mania.

The greatest number of idiots are either destitute of speech or are confined to the utterance of some inarticulate sounds. To be an idiot is almost levelled with an automaton to be deprived of speech or to Seguin a pupil of Itard founded in Paris the first school for idiots in 1837 .In 1846 the first private school for mental defectives in England was opened in Bath. In 1847 Park House in High gate opened by a philanthropist Andrew Reed and this had an annexed at Colchester which later became the Royal Eastern Counties hospital and newly built model asylum at Earl's wood which opened in 1855. It had 500 beds which set the pattern for many similar institutions and these 19th century hospitals lasted well into second half of the twentieth century. Retain that power merely of pronouncing inarticulate sounds, to be obedient only to the instructions one and sometimes to be insensible even to that to be incapable of feeling, attending to or gratifying without assistance their appetite for food, to remain motionless in the same place and position for several days together without discovering one single expression either of thought or expression. To be at other times subject to certain furious and evanescent outbursts of passion.

Such are the characteristics of idiotism. Hence attention to their physical wants and comforts is the utmost that can be devised for these unfortunate beings ... education would not be appropriate owing to the natural indolence and stupidity of idiots they might be engaged in a manual occupation suited to their capacities.

In 1867 the Idiots Act was passed. It was decided that "harmless paupers of the chronic or imbecile class should not be the responsibility of the workhouse, which was their only refuge. Instead they should be seIn the 1860's the first large scale institution was built in order to incarcerate and segregate people then known as idiots

and the insane in Large numbers. Its chief physician was Down who was the first person to accurately describe the syndrome which bears his name The theories of Dr. Down.

He believed that people with Downs Syndrome were a throwback to a more primitive racial type. He was impressed by the oriental appearance of their eyes and thought his patients looked like Mongolians whom he apparently believed to be primitive. Down may have thought that different ethnic races represented different evolutionary stages in man which meant that people with "mongolism" were throw-backs or representatives of arrested development at some earlier evolutionary stage. At this time there was a belief that the British race was superior to all others, a view we now know to be racist. Mental handicap appeared in all social classes the wealthy Victorians in Britain began to make residential provision for their own affected relatives and this provision was later extended to the include the other social classes. In England small schools for the so called idiots began to open and pre occupation with education included those with disabilities. Unfortunately this only interested a minority and as industrialization gained momentum there was little room for the weak and incapable. The workhouses became full of social rejects. Until 1870 the majority of children in the UK received no formal education. Education was provided by voluntary bodies, the church and private fee paying schools. Most "mentally defective" children were confined to workhouses and institutions. Asylums were set up and" educable idiots and imbeciles" there received training and formal teaching. The Forster education act of 1870 established school boards to provide elementary education in those areas where there were insufficient places in voluntary schools.

National Curriculum

Elementary classes were large. Instruction was based on the "official code" with rote learning and memory tests. Teachers were paid by results. Some children were not able to learn in this environment. The 1899 Elementary Education (defective and epileptic children act)applied to children who "by reason of mental or physical defect are incapable of receiving benefit from the instruction in ordinary schools but are not incapable by reason of such defect of receiving benefit from instruction in special classes or schools. There was considerable reluctance however to set up such schools and by 1908 only 133 out of 327 education authorities were using their powers.

In 1914 the power to provide education for mentally defective children became a duty and in 1918 for physically disabled children. These special schools and

private institutions were often run as charities supported by voluntary subscriptions. The main purpose was to provided training and discipline so that the disabled inmates became less of a public burden and didn't end up as beggars or living on poor law handouts or becoming a publics nuisance . While the institutions was providing asylum(refuge) their inmates were expected to help run them. It was felt a healthy body encouraged a healthy mind and Satan made work for idle hands. Physical training and work therapy were encouraged. Social training including simple tasks like mending and cookery was given and instruction in whatever primary subjects could be learned such as telling the time and classes in Speech. They were not hospitals but therapeutic communities did not to care for the "helpless".

In Ireland in the Late 19th and early 20th century religious orders began to take over country mansions, build residential centers, or take over disused sanatoriums Isolated by physical barriers spacious grounds, walls, busy roads. Nuns and monks intention to provide a high quality of devoted care for "children of God" emphasizing their role as protectors of a rejected population, these religious communities drew upon their own traditions of separation from the outside world. They catered for a wide geographical area.

By the end of the 19th century the enthusiasm for education had given way to demands for the permanent segregation from the rest of society. Eugenics was based on a wrong interpretation of Darwin's theories of natural selection. Focusing on hereditary nature of defects it led to wholesale incarceration... Disabled people became segregated into institutions there was no welcome for disabled people in the community. The National Assistance Act of 1911 introduced the first welfare benefits.

A Royal commission on the feeble minded estimated that there were 150,000 "mental defectives "in England and Wales. The care of the mentally handicapped was passing from educationalists to the medical profession who were thought to be able to provide answers to the problem. The government came under pressure to do something for mentally handicapped people... This pressure came from two opposing schools expressing compassion on one hand and fear on the other. The Mental Deficiency Act of 1913 laid on local authorities the duty of providing care for certain cases of mental deficiency .This was done partly by Guardian ship paying for accommodation in certain voluntary institutions providing new premises.

Inclusion, Civil Rights and a better life 1945-2000

The 1944 education act introduced Compulsory Secondary Education. It also

introduced the 11 plus segregating children into secondary modern and grammar schools and subdividing children with impairments into 11 categories including educationally sub normal ,maladjusted and those with speech defects as well as blind, deaf and delicate. Seriously disabled children had to be educated in special schools more and more special schools were opened in the 50s 60s and 70s.

In 1948 with the introduction of the National Health Service in Great Britain many institutions were nationalized and became hospitals .This led to more emphasis on the more helpless patients and on those with disturbed behavior being admitted to these hospitals to the exclusion of those only requiring accommodation and simple supervision. The National Assistance Act of 1948 imposed a duty on Local Authorities to arrange for the welfare of disabled persons. These include people who are "deaf, blind, dumb, and other persons who are permanently handicapped by illness, injury or congenital deformity or who are suffering from a mental disorder" Mental disorder covered both mental illness and mental handicap.

In the 1950's and 60's it was recognized that environment plays an important part in the development of social and mental ability and in 1970 under the Education (Handicapped Children) Act the 70,000 children who had been considered uneducable under the terms of the 1913 MDA act got the right to education under a new category of "educationally sub normal-severe "and 400 new special schools were formed out of the old junior training centers.

The Disabled Persons employment act of 1959 says a local authority must make provision for sheltered employment, training and assistance in finding work for registered disabled people.

The chronically sick and disabled persons Act of 1970 put a duty on local authorities to provide services for disabled people such as practical assistance in the home, help with getting TV, radio, library and other recreational facilities, help with travelling to services arranged or approved by the local authority, assistance with adaptations to the home for greater safety or comfort, holidays, meals at home and elsewhere and help with getting a telephone training.

But attitudes change very slowly and a leaflet from as late as 1973 published by the then National Society for Mentally Handicapped children states:

"When informed by their doctor that their child is affected with mongolism and warned that it may show some mental backwardness, parents often imagine the worst and think that their child will never walk or talk. Although a few Mongol children are as handicapped as this and they can live at home when young, they will

probably later need permanent hospital care. Due to their slow intellectual growth most Mongols are precluded from making satisfactory progress in formal education of the type provided by Local education authorities. However they benefit from the less formal type of education which they receive at the special centers provided by the local Department of Health although these are not always yet available in the more sparsely populated areas of Britain.

In addition to the two already mentioned there is a third considerably smaller group of children with mongolism who are even less backward and develop intellectually from a half to two thirds the rate of an average child. Many of this group can profit from formal education, particularly when given in the smaller classes with specially trained teachers in schools for the educationally subnormal"

From a leaflet published by the National Society for Mentally Handicapped Children entitled The Child with Mongolism (under which is the strap line 80 to 90 per cent can learn to do simple tasks) Printed in 1973.In 1981 at the time of the trial where Dr. Leonard Arthur was accused of murdering a baby with Downs syndrome such children were described as "walking time bombs of disease and infection" In a different trial concerning Alexandra another baby with Downs Syndrome she was described as "an unfortunate pathetic creature", " a helpless and mindless Mongol"

The Disabled Persons Act 1986 put a duty on local authorities to assess people for services. The 1981 education act and the 1989 Children Act, have helped to improve services for children. The 1993 Community Care Act took services away from Long stay hospitals and placed them in the community but without extra cash. The 1993 Education Act and the new Labour legislation are trying to increase choice for children to attend mainstream schools and the Disability Discrimination Act of 1995 hopes to ensure that disabled people have equal civil rights in some areas. It makes it against the law to run a service or provide goods and facilities in a way which makes it impossible or unreasonably difficult for a disabled person to use the service or goods. It is against the law to refuse to serve someone who is disabled. People will have to provide equipment or other helpful items to make it easier for disabled people to use their service. People will have to remove physical obstructions or provide other ways of letting disabled people use their services. The government is able to set minimum standards for new public transport vehicles and for new homes and buildings. The Community Care (direct payments act) 1996 gave local authorities the power to make cash payments knowns as direct payments to community care users for the purchase of their own support .However, the new code of practice

on Special Educational Needs and the education section of the disability discrimination act have both been weakened by pressure from people who see inclusion as expensive.

In conclusion, how does life for an "intellectually impaired" person in 2000 compare with that of a "natural fool" in 1 000 AD? Their standard of living is much better. Almost everyone in Britain today lives more comfortably than the King lived in Norman times-they have flush toilets, gas and electricity, good transport, a variety of food whatever the season and 24 hour a da y entertainment from TV. They have much better health care and education and a welfare system to protect them from starvation and destitution. However the legacy of segregation is still with us today. Many people coming into the community in the 80's and 90's have lived for more than 50 years in a mental handicap hospital. Many children are still educated in special school, and those in mainstream encounter prejudice and ignorance and a mindset of league tables while adults are still catered for in specialist day centers and residential homes.

Nevertheless, public attitudes are slowly changing, the Disability Discrimination Act and legislation on inclusion though not going far enough recognize that people with learning disabilities have equal rights and their opportunities for education and employment are much better than 50 years ago. Let us hope that during the 21 st century the harm done in the 19th and early 20th centuries by eugenics can be put in the past and that just as the 20th century brought about civil rights for women and former slaves, the 21 st century can bring about equal rights and opportunities for people with learning disabilities.

1.4 Definition of Intellectual Disability—International and Indian perspective

1.4.1 Definitions as per ICD10

ICD-10 is the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD), a medical classification list by the World Health Organization (WHO). It contains codes for diseases, signs and symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or diseases.

"A condition of arrested or incomplete development of the mind, which is

especially characterized by impairment of skills manifested during the developmental period, skills which contribute to the overall level of intelligence, i.e. cognitive, language, motor, and social abilities. Retardation can occur with or without any other mental or physical condition.

1.4.2 American Association on Intellectual and Developmental Disabilities (AAIDD)

Intellectual disability is a disability characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. This disability originates before the age of 18.

KEY CONCEPTS

I. DISABILITY

II INTELLECTUAL

III. ADAPTIVE BEHAVIOUR

IV. AGE OF ONSET

DISABILITY

> A disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.
>
> (WHO, 1976)

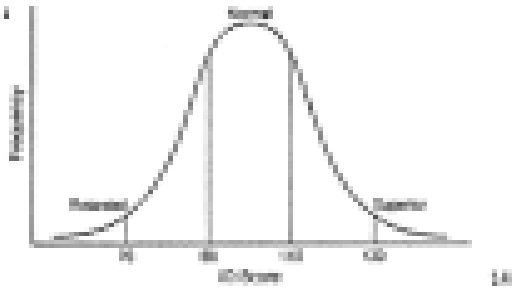
Disability is an umbrella term, covering

- Impairment
- Activity Limitations
- Participation Restriction

INTELLECTUAL FUNCTIONING

Intelligence refers to general mental capability, such as learning, reasoning, problem solving and so on.

Limitations in intellectual functioning refers as an IQ test score is approx.



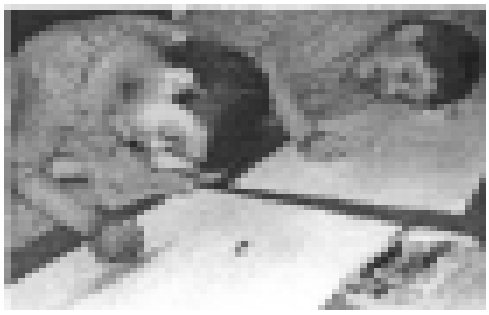
ADAPTIVE BEHAVIOUR

Adaptive Behaviour represents the ***conceptual, social*** and ***practical skills*** that are learned and performed by people in their everyday lives.

- **Conceptual skills**- Language and Literacy, money, time, number
- **Social skills**- interpersonal skills, social responsibility, safety, follows rules, avoids victimization.
- **Practical skills**- ADL, occupational, travel, using telephone.

AGE of ONSET

There is evidence of disability during the developmental period— before the ***age of 18.***



ADDITIONAL CONSIDERATIONS

- **Community Environment**
- **Peer Group**
- **Cultural Differences**
- **Linguistic Diversity**

1.4.3 World Health Organisation (WHO)

A condition of arrested or incomplete development of the mind, which is especially characterized by impairment of skills manifested during the developmental period, skills which contribute to the overall level of intelligence, i.e. cognitive, language, motor, and social abilities. Retardation can occur with or without any other mental or physical condition.

Intellectual disability means a significantly reduced ability to understand new or complex information and to learn and apply new skills (impaired intelligence). This results in a reduced ability to cope independently (impaired social functioning), and begins before adulthood, with a lasting effect on development.

Disability depends not only on a child's health conditions or impairments but also and crucially on the extent to which environmental factors support the child's full participation and inclusion in society.

The use of the term intellectual disability in the context of the WHO initiative **''Better health, better lives''** includes children with autism who have intellectual impairments. It also encompasses children who have been placed in institutions because of perceived disabilities or family rejection and who consequently acquire developmental delays and psychological problems.

1.4.4 PwD Act 1995

"Mental retardation" means a condition of arrested or incomplete development of mind of a person which is specially characterized by subnormality of intelligence.

1.4.5 RPD bill(proposed)

THE RIGHTS OF PERSONS WITH DISABILITIES BILL, 2014

A BILL to give effect to the United Nations Convention on the Rights of Persons with Disabilities and for matters connected therewith or incidental thereto. WHEREAS the United Nations General Assembly adopted its Convention on the Rights of Persons with Disabilities on the 13th day of December, 2006; AND WHEREAS the aforesaid Convention lays down the following principles for empowerment of persons with disabilities,- (a) respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons; (b) non-discrimination; (c) full and effective participation and inclusion in society; (d) respect for difference and acceptance of persons with disabilities as part of human diversity and humanity;(e) equality of opportunity; (f) accessibility; (g) equality between men and women; (h) respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to preserve their identities; AND WHEREAS India is a signatory to the said Convention; AND WHEREAS India ratified the said Convention on the 1 st day of October, 2007; AND WHEREAS it is considered necessary to implement the Convention aforesaid.

1.4.6 Diagnostic and Statistical Manual of Mental Disorder IV (DSM IV)

> DSM is the manual used by clinicians and researchers to diagnose and classify mental disorders.
>
> ‘‘Mental retardation is defined as significantly sub average general intellectual functioning that is accompanied by significant limitations in adaptive functioning in at least two of the following skills areas i.e communication, self-care, home living, social/interpersonal skills, use of academic skills, work, leisure, health and safety with an onset before the age of 18 years.’’

1.4.7 Diagnostic and Statistical Manual V (DSM V)

The diagnosis of intellectual disability (intellectual developmental disorder) is revised from the DSM-IV diagnosis of mental retardation. The significant changes address what the disorder is called, its impact on a person’s functioning, and criteria improvements to encourage more comprehensive patient assessment.

Intellectual Disability (Intellectual Developmental Disorder) is a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains.

Intellectual disability involves impairments of general mental abilities that impact adaptive functioning in three domains, or areas. These domains determine how well an individual copes with everyday tasks:

The conceptual domain includes skills in language, reading, writing, math, reasoning, knowledge, and memory.

The social domain refers to empathy, social judgment, interpersonal communication skills, the ability to make and retain friendships, and similar capacities.

The practical domain centers on self-management in areas such as personal care, job responsibilities, money management, recreation, and organizing school and work tasks.

Unit 1.5 ❑ Etiology, Causes & Prevention

1.5.1 Prenatal Hazards

Infections

The most common prenatal infections associated with intellectual disability are rubella, toxoplasmosis syphilis and cytomegalovirus. These infectious diseases are responsible for a small percentage of the population of intellectuality disabled persons.

Congenital rubella

This disease in new borns is caused by a virus that infects the pregnant woman during the first placenatal and then to fetel infection. The embbryiological timing of the viral insult is crucial as the fetus is especially vulnerable during the first 3 months of pregnancy. The symptoms are varied and unpredictable; rubella pregnancies may lead to spontaneous abortion to still birth to live birth with one or more abnormalities or to a perfectly normal child.

Congenital Rubella is wholly preventable through a vaccme. The vaccination of children is of special concern because they often spread the viral infection to previously unexposed mothers. Vaccination of prospective mothers is also recommended.

Congenital cytomegalovirus

This is the most common of fetal infectionsand is found in about 1 percent of all new borns. Fortunately about 95 percent of affected infants are asymptomatic. Neonatal death is common and about 75 percent of survivors show neurological abnormality, blindness, deafness, spastic quadriplegia, orhypotonia, and variable degress of intellectual disability.

Congenital Toxoplasmosis

This is a protozoan infection that like rubella is typically non injurious to the pregnant woman but devastating to the fetus also as in rubella Fetal vulnerability is largely confined to the first of month of prenatallifecular and neurological lessons and brain calcification characterize the congenital form of the disease. The acutely ill new born usually dies in the first month of life and the great majority of survivors posses complete or partial blindness and psycho-motor disturbances. Treatment of the new born consists of chemotherapy which is desinghned to arrest the infectious process.

Metarnal Fetal blood incompabilities

Intellectual disability may occur when the mother aquires what is in effect an allergic reaction to her new born baby blood. Rh disease is the well-known example of the phenomenon. ABO blood group in compability is also a potential though lesser cause of fetal central nervous system damage.

Rh - incompability

It occurs when mother and fetus have different Rh blood groupfactors. The Rh factors is an autosomal hereditary trait, Rh positive is dominant to Rh- negative. The maternal - fetal incompability arises only when an Rh negative mother bears a child of an Rh positive father. Where the father is homogenous, all of the children would be Rh-positive and potentially vulnerable the remainder, off the offspring shall be Rh-ncgative like the mother.

Although the precondition to the Rh disease is an Rh-negative mother and an Rh-positive fetus problems arise only, if there has been some previous mixing of fetal and maternal blood. If this has Rh-positve blood will have responded to the baby's foreign blood by producing anti bodies that have the capability of destroying fetal blood cell. Such antibody effects are more likely to be found in later born children but fortunately only about 10 per cent of vulnerable mothers-react. Sensitization of the rh negative mother to rh positive blood usually occurs at child birth when some mixing of maternal and fetal blood into the maternal circulation or after an abortion. Following sensitization of the mother she begins to produce anti-bodies. If this occurs during the first pregnancy there are usually no ill effects on the fetus. But if during suceding pregnancies mixing recurs an enhanced maternal store of antibodies can destroy red blood cells, causing fetal anemia and setting the stage for possible post natal damage to the brain. It is the latter that has an implications for intellectual disability.

Folic Acid Deficiency

Neutral Tube defects are birth defects that occur in the brain or spinal cord. Spina-bifida is the most common NTD. Babies born with the NTD anencephaly can be still born or die soon after birth. Women, who take the vitamin -B and folic acid is also help\ful in preventing NTD. These foods include peas corn dried beans, white and whole wheat bread, fortified breakfast cereals and orange juice. The folic acid can be destroyed if these foods are over cooked.

Drugs alchohol and tobacco

There are some 20 drugs that are known to produce adverse tetal effects so called teratogens. In the late 1950s and early 1960swe became aware of thalidomide, in the 1960s with the flourishing of hard drugs; we were alerted to the chromosomal breakage in connections with LSD and to fetal of heart lungs skeleton, and central nervous system associated with the maternal use of amphatamines. an anti-nausent used during pregnancy and a cause of limb malformations. In the 1960s it was found in drug-addicted. In the 1970s and 1980s, attention has been called to the adverse effects on the fetus of alehohol and tobacco during pregnancy.

Narcotic Addiction

The use of heroin and methadone throughout pregnancy appears to have two fetal effects. Babies tend to be similar and about 80percent are born addicted. Addiction is seen in the appearance of withdrawal symptoms within 4 days after birth. In order of frequency, they involve the central nervous system looseness, in coordination of sucking and swallowing and seizures the gastrointestinal system and the autonorruc nervous system.

Marijuana

The effect of marijuana smoking during pregnancy is unclear. Women who use marijuana during pregnancy are at greaeter risk for babies with low birth weight, shorter gestation periods and major mal formations.

Alcohol

The most commonly abused drug alchohol has been clearly tied to fetal abnormalities including intellectual disability. The clinical picture in the neonate has been termed the fetal alchohol syndrome. Its symptoms are retarded physical development, microcephaly, micrognathia micro phthlmia, cardiac defects and intellectual disability. Although there is no direct evidence of an adverse effect of maternal tobacco smoking duringpregnancy on later mental development, research indicates increased pregnancy risks that could be associated with neurological abnormality and cognitive impairment.

The initial study on the effects of cigarette smoking during pregnancy found an increased risk of pre-maturity in the new born. Numerous studies reveal that birth weighs are reduced in proportion to the number of ciggartcs smoked. There is now evidence that maternal smoking related increase in several complications of pregnancy bleeding, abrupture of the membrane.

Other teratogenic Drugs

Drugs used for medical purposes may also damage the fetus. Reference was made earlier to thalidomide. Quinine can cause deafness, and anticovulsant drugs can produce abnormalities. The so-called fctat. hydantoin syndrome occurs in about 10 percent of the offspring of epileptic women and like the fetal alchohol syndrome includes growth impairment at both the physical and intellectual levels.

During prergnancy the mother must avoid smoking, taking alchohol, harmful medications posses some risks of lung disorders in neonates and drugs for giving birth to a healthy child.

Radiation

The teratogenic effects of radiation have long been known. Early studies found that women who were receiving therapeutic pelvic irridation for cancer during early pregnancy have an increased risk of havingchildren with microtephaly and intellectual diability. The same clinical pictli'fe was seen in pregnant woman exposed to first trimester, can be haXful. Since most of our radiation exposure is through medical treatment, I prevention of these problems requires careful use of X-ray in pregnancy and throughout the child bearing years.

Chronic Maternal Health problems

A series of maternal infectious disorders, high blood pressure affects the circulation to the uterus and may either interface. But there are also some non-infectious and chronic health problems that can threaten the health of the fetus.

Hypertension

In hypertensive disorders, high blood pressure effects the circulation to the uterus and may either interfere with the development of a normal placenta or cause it to undergo degenerative change. In either case the fetus is deprived of adequate blood supply either causing in uterus death or impairing general growth and development. Hyper tensive disease is a particular problem in the last trimester of pregnancy and is a major cause of maternal death and fetal loss.

Diabetes mellitus

The diabetic mother whether the diabeties is chronic or gestanation in nature also creates fetal risks. She is much more susceptible to hypertention and to its potential placental circulatory problems. Diabetic women also tend to bear babies who are very large and yet have physiologically immature lungs. Their large size and immaturity can lead to problems to brain damage.

1.5.2 Perinatal Hazards

In terms of health, the first 28 days of life are the most impotant period in childhood. This is thye time of greatest infanl mortality but its is also a period during which sub-lethal damage from periantal events is frequent. Brain injury suffered during labor, delivery or during the neonatal period cause a large proportion of neurological problems which later manifest themselves as cerebral palsy, deafness and/or intellectual disability.

Pre-maturity

It is one of the important factors associated with either neonatal mortality or chronic brain injury, abnormalities of birth weight and gestational age. The premature infant has been traditionally definedas either born before 38 weeks or having birth weight of less than 2500 grams. About 7-10 precent of biths are premature but its frequency varies with the sex of the child and with raceand socioeconomic status of the mother. The health problems of the premature neonate tend to be proportional to the degree of pre maturity. There are two primary causes of prematurity :- impairment of potential for normal growth associated with chromosomala bnormalities, exposure to toxins intrauterine infection and restriction of a normal potential due to such factors as multiple pregnancies or placenatal vascular disease as in diabetics or hyper tension.

Asphyxia

While the roles of perinatal asphyxia and physical trauma as causes of brain damage have probably been exaggerated in the past, these hazards are still important. Asphyxia is a leading cause of death in very small infants, those with birth weighs of 1000 grams. On the other hand, the healthy new born is said to be remarkably resistive to it if there is no prior brain damage. If there has been no evidence, however prolonged perinatal asphyxia can produce either brain damage or death. Common causes are pre-mature separation of the placenta, prolapse of the umbilical cord, difficult labor, depression of the respectory center due to excessive anesthesia and obstruction of the respiratory airway.

Physical Trauma

Physical trauma during the birth process can result in trauma vascular injury. While it has been greatly reducesd by modern obstetric procedures, it still occurs particularly in connection with prematurity or difficult labor. Massive brain

hemorrahage is usually fatal, but small intra-cerbral hemorrhages can lead to motor abnormalities, seizures and intellectual disability.

Herpes infections

This is a viral infection of the geriuts that is occurring with increasing frequency in pregnant woman. Following initial infection the virus is generally dormant within the maternal issue until reactivated by variety of stimuli and resulting in renewed infection. The herpes virus is generally contagious. It is transmitted from mother to infant during childbirth where about half of the new borns affected. When the maternal infection is recognized close to the time of birth deliver1 may be by cesarean section. Because of the neonates immature immunological system, spread of the infection is common, and results in death or serious consequences in about80 percent of cases.

1.5.3 Postnatal Hazards

Post-natal biological factors causing intellectual disability consist of infectious diseases, which affect the brain, cerebro-vascular accidents (most often from head injury), brain tumors, poisons, environmental toxins and severe dietary protein deficiency.

Infectious Diseases

There are two kinds of infections that can result in permanent neurological problems and intellectual disability - encephalitis and meningitis. Encephalitis is inflammation of the brain, and meningitis is inflammation of the three membranes that line the brain, the meninges.

Encephalitis

Inflammation of the brain leads to injury to nerve cells (neurons). This may result from an initial invasion of the brain by an infectious agent (primary encephalitis) or following the infection of another organ (secondary encephalitis). The major sources of primary encephalitis are the viruses of mumps, herpes simplex, and infectious mononucleosis. Mumps virus is the most common and can produce death or such permanent neurological deficits as intellectual disability, cerebral palsy and seizures. Among the secondary encephalitis, the most common is measles encephalitis, but it can also be associated with whooping cough. Measles encephalitis is a very rare complication of ordinary measles.

The course of the disease is unpredictable, with about 20 percent suffering permanent damage.

Meningitis

In meningitis, there is infection of the meninges with consequent inflation and symptoms of increased intracranial pressure (fever, bulging of fontanelles, projectile vomiting, alternating periods of drowsiness and irritability). In serious infections associated with high fever, one sees convulsions, stupor or coma. With the development of antibiotics and other drugs, there has been a major reduction in mortality rate in the most serious of the meningitis, bacterial meningitis, but a sizable proportion of children affected in the first year of life are still left with crippling neuromuscular problems, hearing and visual impairments, seizures and cognitive deficits.

Cerebral Trauma

Among children, accidental injuries are the greatest threat to life. About 40 per cent of all trauma cases in children involve head injuries. Most injuries to the head are simple concussions or mild contusions, and there is usually complete recovery without complications. The head injuries that are more serious are those that involve intracranial bleeding. Bleeding between the outermost membrane covering the brain (and spinal cord), the dural matter, and the brain itself, subdural hematoma, can result in cerebral atrophy and neurological deficit. Fortunately, neither organic dementia nomintellectual deficit, as such, is a common outcome of cerebral trauma. The main symptoms are enuresis, disturbance of sleep patterns, episodically aggressive behavior, and decline in school achievement.

High percentage of injuries occurs in children who are tired, hungry or playing in unsupervised or unsafe areas. Risk is high when illness or emotional tension is there in the family.

Poisons and Environmental Toxins

In the earlier section on pre-natal factors, reference was made to the potentially adverse environment to which a fetus might be exposed through maternal use of drugs. There are also some post-natal dangers to the brain associated with drug use. Glue sniffing has been linked to brain damage, and barbiturate abuse has been related to impairment in cognitive functioning. The most important of the toxic dangers, however, are lead and mercury.

Lead Poisoning

Lead encephalitis is a complication of lead poisoning. It usually results from prolonged ingestion by the infant or young child of flaking leaded paint, the kind found in dilapidated housing. Daily consumption of only a few small chips for 3 months can produce lead poisoning. Most cases of acute lead encephalitis occur in children ages 1 - 3 years, of whom about 5 per cent die and 50 per cent sustain permanent brain damage.

Mercury Poisoning

Dramatic evidence of the toxic effects of some metals has also been shown for mercury. Accidental consumption of mercury may cause serious neurological problems involving memory, skin sensation, vision, gait, and emotional stability, cerebral palsy and intellectual impairment. In addition to these effects, mercury consumption by pregnant women may lead to pre-natal damage.

Malnutrition

One of the most perplexing questions in intellectual disability has been the effect of malnutrition on mental development. It is estimated that as least half of the children in developing countries are moderately or severely undernourished - with basic caloric deprivation as the primary problem. Research efforts to relate malnutrition specifically to intellectual impairment have been continually confounded by the fact that malnutrition usually does not occur alone but rather in combination with other biological and psychological hazards to normal mental development. For example, infectious diseases may be the most important cause of malnutrition. The malnourished child has limited resistance to infection, and the infection itself aggravates nutritional stress by elevating calorie requirements.

A study by the National Sample Survey, Government of India, has revealed that among the children, 31 per 1000 in the rural area and 9 per 1000 in the urban area are developmentally disabled. Malnutrition is one of the major causes responsible for higher number of developmentally disabled children in the rural India. This includes malnutrition of pregnant women, infants and young children.

All women require good nutrition during pregnancy, especially adolescent girls whose own bodies are still growing. Nutritious meals consisting of items from the five major food groups eaten each day help the fetus grow. These food groups include: vegetables; fruits; breads, cereals and rice; milk, yogurt and cheese; and

meat, poultry, fish, dry beans, eggs and nuts. Since foods within each group vary somewhat in nutrition content, pregnant women should vary their choices within each group. A woman should consume about 300 extra calories a day when pregnant. Adequate drinking of water helps the body digest food and absorb essential nutrients.

By eating a well-balanced diet, most women can get a good supply of vitamins and minerals needed for pregnancy. However, most doctors will prescribe a pre-natal multivitamin supplement to ensure the pregnant woman receives sufficient iron, calcium, folic acid and other needed nutrients.

Poor nutrition and unbalanced diets during pregnancy can cause low birth weight or pre-mature births. Infants who service these conditions are more likely to have intellectual disability, cerebral palsy, epilepsy and respiratory disease.

1.5.4 Prevention of Mental Retardation

If taken suitable action and precautions in the right time, many a time, mental retardation IS preventable. Preventive services should be administered by the physicians, parents and the community and should be efficiently implemented. They should cover both mother and child health care. Child health care begins right from the stage of unborn child to its full development stage up to 18 years of age. Our efforts are towards producing healthy babies without physical defects or mental retardation. A good health delivery system, which has easy access to everyone and gives quality care at minimum cost is very essential.

Prevention Strategies at Various Levels

The old dictum "prevention is better than cure" is also applicable to intellectual disability. More knowledge on the causes of intellectual disability helps its prevention. Three levels of prevention of intellectual disability have been described. The levels of prevention are:

- Primary prevention
- Secondary prevention
- Tertiary prevention

1.5.4.l Primary Prevention

Primary prevention focuses on the developing fetus. The objective is to reduce the number of children born intellectually disabled or with conditions that could lead

to intellectual disability. One of the important strategy can be to provide good teaching to a pregnant woman regarding dangers of drugs, alcohol and smoking. Genetic counseling for couple~ whose children are at risk is another. Research is essential to find:g causes and possible treatments for conditions that can lead to intellectual disability. The effects of rubella, for example, have been largely eliminated through antibody screening and immunization programme.

1.5.4.2 Secondary Prevention

The objective of secondary prevention is to identify and change environmental conditions that could lead to intellectual disability. By screening newborns for PKU, we can begin treatment and prevent intellectual disability. By eliminating sources of lead, we can reduce brain damage from lead poisoning. by providing youngsters from disadvantaged homes with strong preschool programmes, we can begin to counteract the elements that can cause intellectual disability due to environmental factors.

1.5.4.3 Tertiary Prevention

Tertiary prevention focuses on arranging the educational and social environment so people who are born with or who develop intellectual disability can achieve their maximam potential and highest quality of life. Early intervention programmes–start with youngsters who seem to be at risk for intellectual disability at an early age and try to sharpen their perceptual abilities, encourage the use of expressive language, and give practice in classification and reasoning. Some programmes urge parents to continue and extend these activities at home. All attempt to strengthen the thinking processes of young children who are delayed in development, and all succeed to a degree.

For prevention of intellectual disability, one must study the causes carefully and take appropriate preventive measures during pre-natal, peri-natal and post-natal period. Possible preventive measures have been suggested along with specific causes.

Steps for Prevention at different Stages of Development

Each developmental stage requires adequate attention to prevent mental retardation. For each stage the required preventive measures are described in a sequential manner.

1.5.4.4 Prenatal Prevention

Inadequate pre-natal care has been linked to pre-maturity and low birth weight, which is in turn linked to mental retardation. Pre-natal care that will guard the foetus against damage from maternal illnesses and infections and other dangers should be assured for every pregnant women from the very start of the pregnancy.

The Pregnant woman is advised:

i. To go for regular anti-natal checkups for early detection of abnormalities, illnesses and infections so that prompt treatment and 11 good management plan for delivery can be provided.

ii. To maintain good nutrition status: Poor nutrition for both the baby and the mother is linked with impaired brain development and retardation. Malnutrition in the mother can give rise to low birth weight baby who in turn is a high-risk infant for mental retardation. Therefore, anti-natal programmes and child health programmes should ensure good nutrition and health to both the mother and the child. A pregnant woman has to take sufficient amounts of nutritious foods to maintain her health and also supply nutrients to the growing foetus. Thus the food requirement of a pregnant woman increases greatly. The diet should contain adequate amounts of proteins, carbohydrates, fats and minerals to supply the required calories and body building substances. Therefore, the diet should contain adequate amounts of cereals, pulses, green leafy vegetables, milk, eggs, fruits and fresh foods. Lack of these nutrients can give rise to anemia and other nutritional deficiencies. Iron and vitamin supplements may be given in the form of tablets, syrups or injections, to avoid deficiency status in the II trimester of pregnancy.

iii. To get preliminary investigations done (like blood and urine), pre-natal diagnosis is essential. This encompasses a number of procedures designed to assess the condition of the unborn baby.

a) Ultra sonography.

b) radiography.

c) Amniocentesis.

— to know chromosomal abnormalities

— enzyme deficiencies

— metabolic disorders

— sex of the baby

— alphafoeto proteins.

If these tests prove that the foetus is normal, the parents can be reassured. If found to be abnormal, the parents are given options for medical termination / treatment, which will prevent the occurrence of a child with mental retardation.

Treatment of illness and timely immunization:

a) to get prompt treatment for illnesses and infections.

b) To get immunization at appropriate time: during the 7th', 8th' and 9th' months of pregnancy a pregnant woman should take injection of tetanus toxoid (TT) to avoid the tetanus infection during delivery and immediate post-natal. It also gives immunity of the fetus and the new born child as the maternal antibodies pass to the fetus via the placenta.

1.5.4.5 Natal and Perinatal Prevention

A trained person should conduct delivery under hygienic conditions. Unnecessary meddling of the fetus should be avoided. The baby should be handled gently with care. The umbilical cord should be cut with a sterile knife. In cases of difficult or abnormal labour or delivery, the woman should be taken to the nearby hospital without delay. Ensure the delivery of placenta and control of the uterine bleeding after the delivery of the baby. Mother should be allowed to rest for few hours immediately after delivery. The following suggestions are to be followed:

- Good peri-natal care is an important factor in prevention of mental retardation.
- Pregnant woman should be advised to get delivery conducted by trained personnel at home under hygienic conditions or at a health center.
- For all complicated pregnancies and labours the delivery should be conducted at hospitals in order to bring down injury and infection, which are the causative agents of mental retardation in the child. At present survival rate of babies is very good especially the premature and low birth weight babies with good peri-natal care. They also survive as normal healthy babies thus bringing down the percentage of mentally retarded cases.
- All high-risk infants should be well taken care of and should have a long-term follow up for early detection of handicapping conditions and delays in development.

1.5.4.6 Postnatal Prevention

Neoriatal screening: Some of the conditions of mental retardation like PKU and Hypothyroidism can be· prevented from progressing into mental retardation by early treatment. Therefore, it is highly important to detect these at the earliest. This is possible with simple tests of blood and urine examination in a new born and treated immediately. Other metabolic errors also can be detected during the neonatal screening and parents should be counseled regarding mode of inheritance and recurrence risks in avoiding further occurrence of mental retardation due to these causes.

High risk infants care and follow up: Intensive care should be immediately available to babies who are at high risk for mental retardation such as pre-maturity, low birth weight, birth asphyxia, babies born of prolonged difficult labour and other complications. There is a need for well-equipped neonatal intensive care units to cater to such services. Even after discharge from hospitals such babies need a close follow up to identify delays and abnormalities in development. This helps us in giving the earliest interventions and corrections, which reduce the severity of handicap.

Early stimulation and intervention programmes: These programmes are for children with handicap or developmental delays. The two main components of these programmes are:

1. Directly stimulating the child with enriched environment to enhance development.
2. Teaching the parents the techniques that can be used at home and helping them to have better parenthood.

They cover the child's health, nutritional, psychological and educational needs. These programmes prevent further complication and reduce the severity of handicap.

Immunization: Mental retardation caused by infections like Diphtheria, Tetanus, Whooping cough, Typhoid, Measles and Poliomyelitis and Rubella can be prevented by active immunization programmes. Immunization confers protection against the specific viral and bacterial infections.

To prevent the negative effects of Rh-incompatibility an injection of Rh-immunoglobin (Rh-IG) must be given to susceptible pregnant women within 72 hours after each delivery, abortion or miscarriage.

Early identification and appropriate treatment of infections lessens the complications. Proper environmental and personal hygiene, clean water supply, destruction of insects and animals which carry infections all help in reducing the occurrence of infections and thereby the occurrence of mental retardation.

Prevention of accidents and poisoning: Accidents and poisoning can injure the brain and cause irreversible damage and mental retardation. This is one of the preventable causes of mental retardation. However the following steps should be followed.

- People should be made aware of the potential causes of accidents and poisoning and the methods of avoiding them through various "public awareness programmes".
- Safety principles, safety equipment and safety requirements should be made known to general public.
- More rigorous identification and eradication of toxic substances in the environment, such as lead paint, airborne or water borne mercury compounds should be perused.
- Screening programmes to identify the affected children should be emphasized upon for early treatment and prevention of mental retardation.
- Use of alcohol, drugs and teratogens is another major cause of retardation as they have adverse effect on the developing foetus. Therefore, these have to be avoided specially during pregnancy to prevent the occurrence of mental retardation in babies.

Nutrition: As mentioned earlier, poor nutrition for both the baby and the mother is linked to impaired brain development and retardation. Malnutrition in the mother can give rise to low birth weight baby who in turn is a high-risk infant to mental retardation. Therefore, antenatal programmes should ensure good nutrition and health to birth the mother and the child.

Family planning: The best age the mother is between 20 and 30 years. Having children when younger or older increases the risk of having a mentally retarded child. Pregnancies at very short intervals drawings on the health of the mother leads to complications therefore family size should be restricted and children should be properly spaced.

Dissemination of the information: The information regarding prevention of mental retardation should be disseminated to the general public and the various professionals involved creating awareness. Research is needed to frame further developmental strategies for facilitating progress in prevention of mental retardation and developmental delays.

Unit 1.6 ❑ Classfication of persons with Intellectual Disability

Classification of Intellectual disability

1.6.1 Psychological classification

A psychologist measures the intelligence quotient through psychological testing to make a psychological classification of an individual. The intelligence quotient of a person can be calculated by the given equation:

I.Q =MA/CA X100

I.Q = Intelligence quotient-Actual intellectual ability of a person

MA= Mental retardation-Mental age of the person as per test findimg.

CA= Chronological Age -Actual age of a person.

Based on the 1980 APA definition, the operational classification for persons with mental retardation is as follows:

Level of Retardation	IQ Range
Mild Mental Retardation	50-BELOW 70
Moderate Mental Retardation	35-49
Severe Mental Retardation	20-34
Profound Mental Retardation	BELOW 20

1.6.2 Medical classification

Mental Retardation has been characterized according to medical symptoms and factors. It can be classified based on the following causes and symptoms-

1. Infection and Intoxication
2. Mental and physical problems
3. Metabolism and nutrition
4. Mental diseases
5. Unknown factors from birth
6. Genetic disorders
7. Diseases during pregnancy

8. Psychosis
9. Environmental factors
10. Other factors

**For more details on medical classification refer to unit 1 (1.3)

1.6.3 Educational classification

In the special education centers in India, the (9assroom ~ssification in operation is as shown below:

. Pre-Primary level -Chronological ages - Mental ages	 3 - 6 years Up to 5 years
Primary level - Chronological ages - Mental ages	 7 - 10 years 5 - 7 years
Secondary level - Chronological ages - Mental ages	 10 – 14 years 7 - 9 years
Pre- Vocational level Chronological ages 14 - 16 years - Mental ages	 15-below 18 years 8 + years

Classification by Educational Expectations :-

Terminology	**IQ range**	**Educational expectation**
Educable	IQ 50 to 70	Second to fifth grade achievement III school academic areas
		Social adjustment that will permit some degree of independence in the community
		Occupational sufficiency that will permit partial or total self support
Trainable	IQ 20 to 49	Learning primarily in the areas of self-help, very limited achievement in areas considered academic

		Social adjustment usually limited to home an closely surrounding area.
		Occupational performance primari in sheltered workshop or an institutional setting.
Custodial	IQ Below20	Usually unable to achieve even sufficient skills to care for basic needs.
		Will usually require nearly total care an supervision for duration of lifetime

1.6.4 Based on intensity of needed supports

Intermittent	Limited	Extensive	Pervasive
Supports on a needed basis characterized by episodic nature, person not always needing the support (s) or short term supports needed during life span transitions (e.g. Jobless or an acute medical crisis) intermittent support may be high or low intensity when required.	An intensity of supports characterized by consistency over time, time limited but not of an intermittent nature, may require fewer staff members and less cost than more intense levels of supports (E.g. Time limited employment training or transitional supports provided during the school to adult period.	Supports characterized regular involvement (e.g. Daily) In at least some environments (such as work or home) and not time limited (e.g. Long term support and long term home living support)	Supports characterized by their constancy and high intensity, provided to cross environments, Potential life sustaining nature pervasive supports typically involve more staff members and instructiveness than do expensive or time limited supports.

1.6.5 ICF

INTRODUCING THE ICF

The International Classification of Functioning, Disability and Health (ICF) are a framework for describing and organizing information on functioning and disability. It provides a standard language and a conceptual basis for the definition and measurement of health and disability.

The ICF was approved for use by the World Health Assembly in 2001, after

extensive testing across the world involving people with disabilities and people from a range of relevant disciplines. A companion classification for children and youth (ICF-CY) was published in 2007.

The ICF integrates the major models of disability. It recognizes the role of environmental factors in the creation of disability, as well as the relevance of associated health conditions and their effects.

This overview provides a brief introduction to the ICF — its structure, contents, purposes and applications.

Aims

The ICF is a multipurpose classification system designed to serve various disciplines and sectors — for example in education and transportation as well as in health and community services — and across different countries and cultures.

The aims of the ICF (WHO 2001:5) are to :

- provide a scientific basis for understanding and studying health and health-related states, outcomes, determinants, and changes in health status and functioning;
- establish a common language for describing health and health-related states in order to improve communication between different users, such as health care workers, researchers, policy-makers and the public, including people with disabilities;
- permit comparison of data across countries, health care disciplines, services and time; and
- provide a systematic coding scheme for health information systems.

The ICF 'has been accepted as one of the United Nations social classifications ... and... provides an appropriate instrument for the implementation of stated international human rights mandates as well as national legislation' (WHO 2001:5-6). Hence, the ICF provides a valuable framework for monitoring aspects of the UN

Convention on the Rights of Persons with Disabilities (UN 2006), as well as for national and international policy formulation.

Underlying principles

Four general principles guided the development of the ICF and are essential to its application.

Universality. A classification of functioning and disability should be applicable to all people irrespective of health condition and in all physical, social and cultural contexts. The ICF achieves this and acknowledges that anyone can experience some disability. It concerns everyone's functioning and disability, and was not designed, nor should be used, to label persons with disabilities as a separate social group.

Parity and etiological neutrality. In classifying functioning and disability, there is not an explicit or implicit distinction between different health conditions, whether 'mental' or 'physical'. In other words, disability is not differentiated by etiology. By shifting the focus from health condition to functioning, it places all health conditions on an equal footing, allowing them to be compared using a common metric. Further, it clarifies that we cannot infer participation In everyday life from diagnosis alone.

Neutrality. Domain definitions are worded in neutral language, wherever possible, so that the classification can be used to record both the positive and negative aspects of functioning and disability.

Environmental Influence. The IeF includes environmental factors in recognition of the important role of environment in people's functioning. These factors range from physical factors (such as cl imate, terrain or building design) to social factors (such as attitudes, institutions, and laws). Interaction with environmental factors is an essential aspect of the scientific understanding of 'functioning and disability'.

THE ICF MODEL

In the ICF, functioning and disability are multi-dimensional concepts, relating to:

- The body functions and structures of people, and impairments thereof (functioning at the level of the body);
- The activities of people (functioning at the level of the individual) and the activity limitations they experience;
- The participation or involvement of people in all areas of life, and the participation restrictions they experience (functioning of a person as a member of society); and
- The environmental factors which affect these experiences (and whether these factors are facilitators or barriers).

The ICF conceptualizes a person's level of functioning as a dynamic interaction between her or his health conditions, environmental factors, and personal factors. It is a bio psychosocial model of disability, based on an integration of the social and medical models of disability.

Ethical use

Every scientific tool can be misused, and the ICF is no exception. For all uses of ICF--clinical, research, epidemiological, health and social policy-it is essential that information gathered and analysed must respect the inherent value and autonomy of the individuals from whom the information is gathered. Standard rules about informed consent apply, but more importantly people with disabilities must participate in all aspects of the use ofICF and the application of the data produced.

Full participation and transparency of use are most important in the social applications of ICF and, in particular, with the anticipated use of IeF for the development of indicators for monitoring the implementation of the UN Convention on the Rights of Persons with Disabilities. This important human rights document-which embodies precisely the same conceptual refinement of functioning and disability as the ICF-is our moral compass towards the development of social policy and political change needed to achieve the full participation of persons with disabilities. The ethical application of ICF seeks to support and further this mandate for the future.

Unit 1.7 ❑ Screening, Identification, Characteristics and Needs of PWD

1.7.1 Early Identification and Screening

Screening is a procedure for an initial identification of persons with mental retardation and for a follow up with assessment.

Screening Procedure

Many of the screening techniques collected National Institute for the Mentally Handicapped (NIMH), Secunderaba, appeared in RCI.

A more systematic process and procedure has been the pooling of a battery of tests on clinical investigations by the NIMH, for identification and screening of persons with mental retardation. They include pre-natal, neonatal and post-natal diagnostic procedures:

i) Pre-natal Procedures

A number of prenatal testing procedures such as testing of maternal serum AFP, multiple marker screening, chorionic villous sampling, amniocentesis, and ultrasound and fetoscopy are available to detect the disorders of the fetus. On the basis of the results of screening appropriate corrective steps to prevent intellectual disability should be taken on the advice of a qualified physician. The following screening should be done.

- Blood tests for the pregnant mother
- Hemoglobin levels (Hb %) to detect anemia.
- Blood glucose levels to detect diabetes.
- Blood VDRL to detect syphilis.
- Blood group and Rh typing for blood group incompatibilities.
- Blood antibody titers to detect neural tube defects in the foetus.
- Alpha foeto-proteins to detect neural tube defects in the foetus.

ii) Ultrasonography(during pregnancy)

Many types of foetal pathology including those associated with intellectual impairment later one can be identified during the second trimester of pregnancy to detect such disorders as - neural tube defects, abnormal child.

iii) Maternal serum AFP (Alpha-fetoprotein)

Maternal Serum AFP (Alpha-fetoprotein) screening test is used to detect spina–bifida, Down syndrome and other disorders. It is specially targeted to women under age 35. The test, which measures the amount of alpha~fetoprotein from fetal urine, takes place at 16-18 weeks of pregnancy. A sample of the mother's blood is taken and analyzed for certain chemicals that, together with her age, will determine the individual risk of having down syndrome child, spina-bifida and other disorders. Those found tcrhave an increased risk would be offered an amniocentesis. Results of AFP test take only one weekend the test is safe for both the mother and fetus.

iv) Multiple Marker Screening

Multiple marker screening measures alpha (AFP) and human chorionic gonadotropin (UE3). It enhances the effectiveness of screening for neural tube defects, trisomy 21, trisomy 18. It is done by a blood test that is offered to women between the 15 and 20 week of pregnancy.

v) Fetoscopy

Fetoscopy is done during second trimester of pregnancy in diagnosing certain physical anomalies, metabolic disorders or biochemical abnormalities. A viewing instrument is inserted into the womb.it is aslo used to take blood samples.

vi) Chorionic Villous Sampling where a biopsy of the chorionic villi is performed either transabdominally or vaginally. The sa'mple is then subjected to karyotyping and enzyme determination hydrocephaly, microcephaly, hydrencephaly, holoprosencephaly, prosencephaly and some cerebellar lesions. Intra-uterine growth retardation can also be detected through such measurements as foetal biparietal diameter, crown rump length and transverse abdominal diameter.

vii) Aminocentesis

Aminocentesisis indicated in cases of foetal chromosomal aberration, congenital metabolic errors and open, neural tube defects, severe Rh incompatibility and also in cases of advanced maternal age with previous birth history of an abnormal child. Aminocentesis is a Procedure for purposes of early identification and primary prevention for many genetic abnormalities.

Neonatal and Post-natal Screening and Diagnostic Procedure

Blood and urine examinations are conducted in the neonatal period in all suspected cases and with a previous history of mental retardation in the family. Cretinism is

another condition which can be diagnosed in the neonatal period and necessary treatment given.

- Apgar Score at one minute after delivery is an index of asphyxia and the need for assisted ventilation.
- Urine screening for metabolic errors - PKU (Phenyle Ketoneuria)
- Blood biochemistry tests for cretinism, rickets, jaundice.
- Blood antibody titres to detect infections.
- Chromosomal analysis for Down Syndrome, deletion of syndromes.
- Neonatal neurobehavioural assessments.
- EEG electroencephalogram for seizure disorder.
- Screening for visual impairments (visual acuity, fundus examination, retinoscopy).
- Screening for hearing impairments(Tympanogram, BERA.)
- Ultra sonogram.
- CT scan (comnuterized tomography).
- MRl (Magnetic Resonance Imaging) for intra-cranial pathology and structural abnormalities.

APGAR Score

APGAR has devised a method of scoring which is of practical value. The score is more accurate index of likelihood of death or neurological residue if it is taken at 5 mins. At one minute after delivery it is an index of asphyxia and the need for assisted ventilation.

SI no	**Sign**	**Points**		
		0	**1**	**2**
1	A-Appearance (colour)	Blue, Pale	Body pink extremities blue	Completely pink
2	P-pulse rate (Heart rate)	Absent	Below 100	Over 100
3	G-Gravity (muscles tone of extremities)	Limp	Little motion	Active motion
4	A-Activity (Response to catheter)	No response	Grimace	Cough or sneeze
5	R - Respiratory effort	Absent	Slow irregular	Good crying

● **Ultra Sound Examination :** The technique can be used to detect displacement of brain midline structures, thickness of brain substance, pathological cavities in the brain. Real-time ultrasound examination of the head can reveal intracranial haemorohage in the newborn.

Biochemical Tests in neonatal screening

● Biochemical Tests in neonatal screening for identifying metabolic disorders. Blood and urine examinations are conducted in the neonatal period for identifying metabolic disorders.It is not done as a routine examination but in all suspected cases and with previous history of the intellectual disabilitv in the family.

● **Electro Encephalography (EEG):** EEG is useful not only in epilepsy, but in many other cases of mental retardation and organic brain lesions. In certain cases it also helps in localization of lesions and the severity of a cerebral damage. Incidence of abnormal EEGs is higher in cases of mental retardation associated with epilepsy, encephalitis, severe degree of mental retardation and brain damage sustained before birth or during birth or in the early period of infancy.

● **Computerised Tomography (CT):** There are many abnormalities which can be detected by CT scan of the CNSjllch as, anoxia of tissue, intracranial haemorhage, hydrocephalous and congen,ital anomalies like holoprosencephaly, a-genesis of 235 corpus callosum, Arnold chiari malformations, congenital cysts, calcifications, etc.

● **Magnetic Resonance Imaging (MRI):** This screening helps in identifying a large number of persons with suspected disability in a limited time period.

Screening Tools

The NIMH has developed quick Screening Schedule I (Below 3 years) and Screening SchedulclI(3 to 6 years) shown in Table 1.

Table 1: Screening Schedule I(Below 3 years)

Sl No	Child's Progress	Normal Development	Delayed Development. If not achieved by the period
1	Responds to name / Voice	1-3months	4th month
2	Smiles at others	1-4 months	6th month
3	Holds head steady	2-6 months	6 month
4	Sits without support	5-10 months	12 month

5	Stands without support	9-14 months	18th month
6	Walks well	10-20months	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	A voids simple hazards	3-4 years	4th year
12	Has fits	Yes	NO
13	Has physical disability-what?	Yes	NO

If the child is found to be delayed in anyone of the items given from 1-11 and if he has fits or physical disability then suspect intellectual disability.

Table II : Screening Schedule II (3 to 6 years)

SI no	**Item**		
1	Compare with other children.did the child have any serious delay in sittYng-: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 has weakness and/or stiffness in the limbs and/or difficulty in walking and moving his arms?	Yes	No

6	Does the child sometimes have fits, become riaid, 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?	Yes	No
9	Is the chils' speech in any way different from normal?	Yes	No
10	Compared to other children of his are, does the child apper any way backward,dull or slow?	Yes	No

If any of the above items is answered "Yes", then suspect intellectual disability.

Table III: Screening Schedule III (7 years and above)

SI no	**item**		
1	Compared with other childrern, 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 clear?	Yes	No
5	Does the child have difficulty in expressing without being asked what the child had seen/heard?		
6	Does the child have weakness and/or stiffness in the limbs and/or difficulty in walking and moving his arms?	Yes	No
7	Does the child sometimes have fits, becomes rigid, or lose consciousness'	Yes	No
8	Compared to other children of his are, does the child apper any way backward, dull or slow?	Yes	No

If any of the above items is answered "Yes", then suspect intellectual disability.

1.7.2 Characteristics of Intellectual Disability

Intellectual disability occurs before age 18, and is characterized by delayed development in intellectual functioning and adaptive behavior. The intellectual disability may vary from mild to profound. Adaptive behavior includes skills that people learn so that they can function in their everyday lives. This delayed development is reflected in low performance across academic and other skill areas, as well as significantly lower scores on measures of intelligence and adaptive behavior, when compared with students who are not identified with intellectual disabilities. A score of approximately 70 or below in an intelligence test is considered to be "below average" intellectual functioning. Students with intellectual disabilities have a measured IQ that is lower than 98% of the school-age population. A standardized test of adaptive behavior is used to determine if the child has deficits in conceptual, social, and practical skills that are significantly below average.

Attention and Concentration

- Difficulty focusing and maintaining attention on academic tasks.
- Short, but intense attention span; tasks will either bore or hold attention of student for long periods of time; student can seem off task.
- Easily distracted by even a minimal level of noise.
- Disorganization accompanied by snap decisions; often loses things; careless errors.
- Difficulty juggling multiple task demands or abrupt change in direction.
- Distorted sense of time; unaware how long it will take to do something.
- Get tired or overloaded quickly; need frequent breaks when studying.
- Hyperactivity and excessive movements may accompany the inability to focus.

Memory

- Cannot quickly retrieve names from memory
- Difficulty memorizing strings of numbers or letters
- Frequently lose or forget things

- Often will forget basic information such as the year, their age, friends' names, or names of places.

Oral Language

- Difficulty with sequencing when telling a story
- Difficulty with oral directions
- Difficulty pronouncing words
- Difficulty expressing ideas orally, even when they seem to understand
- Difficulty comprehending while reading aloud
- Unable to concentrate on and to comprehend spoken language when presented rapidly, which causes great difficulty in taking class notes.

Language Skills

- Difficulties associated with short-term memory, syntax, and auditory discrimination
- Decoding and encoding difficulties
- Difficulty reading aloud; slow in oral performance
- Difficulty producing comprehensible responses
- spelling difficulties

Social Skills

- Difficulties in interpreting social cues that may result in lowered self-esteem or cause students to have trouble meeting people or working cooperatively with others.
- Unable to distinguish subtle changes in tone of voice.
- Difficulty in recognizing the difference between smcere and sarcastic comments.

Categories of mild, moderate, severe and profound levels of intellectual disability are defined on the basis of IQ scores.

Mild Intellectual Disability

A mild intellectual disability is defined as an IQ between 50 and 70.

- Can independently participate in most leisure activities within their communities

- May have important relationships with the people in their life
- May struggle in certain social situations
- May marry and raise a family with support
- May have a job suited to their skills
- May live and travel independently with support
- May need help to handle money and to plan and organize their daily routine
- May learn to read and write in appropriate educational setting
- Likely to develop reading, writing, and math skills at a basic level

Moderate Intellectual Disability

A moderate intellectual disability is defined as an IQ between 35 and 50.

- Will have important relationships with the people in their life
- May learn to navigate their community and travel with support
- Will have difficulty planning trips and handling money independently
- Will recognize environmental print (e.g. signs, logos, sight words) in daily life
- Will need visual prompts such as daily schedules and pictures of routines
- Will need support in their daily lives
- May display independence in certain daily living activities, such as dressing and bathing

Severe or Profound Intellectual Disability

A severe intellectual disability is defined as an IQ between 20 and 35. A profound intellectual disability is defined as an IQ below 20.

- have important relationships with the people in their life
- May have little or no speech and will rely on gestures, facial expressions, and body language to communicate needs or feelings
- Will require functional communication systems (e.g. low or high tech augmentative communication devices) in order to express their wants and needs
- Will need visual prompts such as daily schedules and pictures of routines

- Will require extensive support with daily living activities throughout their life.

1.7.3 Needs of PwID

People have different abilities and develop at different rates. Some people find learning new skills or information difficult. This could be because they have an intellectual disability. A person has an intellectual disability if they have both the following before they are 18 years of age:

An IQ below 70 (average IQ is 100) Significant difficulty with daily living skills including looking after themselves, communicating and taking part in activities with others.

Intellectual disability can be mild, moderate or severe and factors such as personality, coping strategies and the presence of other disabilities (motor, social or sensory) will influence a person's requirement for support with daily living.

Needs depend on individual factors

Arbitrary categories of mild, moderate, severe and profound levels of intellectual disability are defined on the basis of IQ scores. These levels give some guide to the level of support someone might need but the way a person functions in their life also depends on other factors including:

- Personality,
- Coping skills,
- Other disabilities - for example, physical, social or sensory,
- The amount of support offered by family, friends and the community,
- What is demanded of them in different situations.

People with a mild intellectual disability

A mild intellectual disability is defined as an IQ between 50 and 70. Generally speaking, a person with a mild intellectual disability:

- participates in and contributes to their families and their communities,
- has important relationships in his/her life,
- works in either open or supported employment,

- may live and travel independently but will need support and help to handle money and to plan and organize their daily life,
- may marry and raise children with the support of family, friends and the service system,
- May learn to read and write.

People with a moderate intellectual disability

A moderate intellectual disability is defined as an IQ between 35 and 50. Generally speaking, a person with a moderate intellectual disability:

- has important relationships in his/her life,
- enjoys a range of activities with their families,
- friends and acquaintances,
- understands daily schedules or future events if provided with pictorial visual prompts such as daily timetables and pictures,
- makes choices about what s/he would like to do, eat, drink etc.
- may learn to recognize some words in context, such as common signs including 'Ladies', 'Gents' and 'Exit',
- may develop independence in personal care,
- will need lifelong support in the planning and organisation of their lives and activities.

People with a severe or profound intellectual disability

A severe or profound intellectual disability is defined as an IQ below 35. Generally speaking, a person with a severe or profound intellectual disability:

- recognizes familiar people and may have strong relationships with key people in their lives,
- has little or no speech and relies on gestures, facial expression and body language to communicate,
- Requires lifelong help with personal care tasks, communication and accessing and participating in community facilities, services and activities.

Remember

A person with an intellectual disability may need assistance with daily living skills such as self-care, communication and community access and participation. Categories of mild, moderate, severe and profound levels of intellectual disability are arbitrarily defined on the basis of IQ score and factors such as personality, presence of other disabilities and social support also play important roles in how the person functions in his/her daily life you're not sure whether a person is able to understand you, assume they and then monitor their understanding and adjust your language communication style accordingly. Always demonstrate respect for person and communicate in ways that acknowledge the age of the pen and the value of their contribution.

1.8 Check Your Progress

1. Define Intellectual disability.

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2. Briefly describe intellectual disability in your own word.

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3. Describe historical perspective of intellectual disability.

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4. What is the biological basis intellectual disability ?

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5. How do you classify the etiological factors of intellectual disability?

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6. What are the influencing factors before conception?

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7. Enlist the prenatal causes of intellectual disability?

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8. Enlist the post natal causes of intellectual disability?

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9. What is prevention?how do you classify prevention?

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10. What are the prevention strategies for intellectual?

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11. Write classification of intellectual disability.

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12. Write psychological Classification.

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13. Write educational classification.

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14. Discuss about ICF.

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15. What is screening?

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16. Describe two medical screening procedures.

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16. Name any two Screening tools.

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17. Describe characteristics of [persons with intellectual disability.

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18. Explain the needs of PWID.

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1.9 Let Us Sum Up

In this unit, we have seen the historic perspectives of the concept of intellectual disability... Intellectual disability is mistaken for mental illness or varied social perceptions ranging from devil to godchild. In early centuries, they were killed or abandon, later they were looked after in institutions, simply meeting their survival needs. Training them to live independently, recognizing their potentials was a development in 1700s initiated by Itard on the "wild boy of Averyron". Later various acts for the disabled persons came about and normalization processes were initiated.

Persons with intellectual disability are classified based on degree of retardation. Medical classification takes into account etiological factors, psychological classification consider IQ scores and educational classification includes current level of functioning

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Unit-2 ❑ Assessment

Structure

2.5.1.3 Curricular Based Assessment (CBA)

a) Definition

b) Procedure followed in developing CBA

c) Relationship between CRT and CBA

2.5.1.4 Teacher Made Test (TMTs)

a) Advantages of TMTs

b) Limitation of TMTs

2.6 Areas of Assessment-Medical, Psychological, Educational Behavioural & Ecological

2.6.1 Medical Assessment

2.6.1.1 Prenatal Stage

2.6.1.2 Neonatal and Post natal Screening and Diagnostic Procedures

2.6.2 Psychological Assessment

2.6.2.1 Level of Intelligence

2.6.2.2 Adaptive Behaviour

2.6.3 Educational Assessment

2.6.3.1 Need for Educational Assessment

2.6.3.2 Tools for Educational Assessment

2.6.4 Behavioural Assessment

2.6.4.1 Rational of Behavioural Assessment

2.6.4.2 Assessing Behaviours

2.6.5 Ecological Assessment

2.7 Documentation of Assessment, Result Interpretation and Report writing Implication of all the above for inclusion

2.7.1 Concept of Documentation

2.7.1.1 The Importance of Documentation

2.7.1.2 Methods of documenting results

2.7.2 Interpretation

2.7.2.1 Level of Interpretation of Assessment

2.7.3 Report Writing

2.7.3.1 Purpose of a report

2.7.3.2 The essentials of good/effictive report writing

2.7.4 Inclusive Education and Assessment

2.7.4.1 Assessment Issues in General Education

2.1 Introduction:

Assessment, in general, refers to a systematic process of gathering information about an individual's level of performance in order to prepare a programme plan. Assessment can be formal and informal.

Perhaps one of the most valuable tools available to the special education teacher is assessment, the process of using tests and other formal and informal means of measurement to make educational decisions. Special educators need a wide variety of information about their students. Regular education is designed to meet the needs of average learners, while special education services are designed to meet the individual needs of students with severe school performance problems. Their instructional plans must be highly individualized, which means that their teachers must have precise information about what the students needs in instructional terms and that is where assessment comes in. Special education teachers need a working knowledge of assessment to effectively and efficiently address student needs and to provide a full range of appropriate educational services. Assessment is technically different from evaluation and measurement. Evaluation involves decision making about student performance and teachings strategies whereas, measurement is evaluation expressed in quantitative terms (Woolfolk, 2001). Assessment is needed at the beginning of the programming and sometimes during and after the programme implementation.

We have discussed the concept of assessment and also the purposes of assessment, but it is also essential to know means and modes of assessment. Precisely information comes from the methods and tools. The methods indicate how to conduct the assessment. Let us recall the example of arithmetic competency. A teacher might gather information about a student's arithmetic competency by observing classroom performance, surveying the notebooks, by asking certain questions, by assigning specific worksheets. All of these procedures indicate that assessment can be done in different ways. Let us now study the various modes of assessment.

Educational assessment helps to find out abilities of the student and plan teaching programme accordingly. To plan the educational programme we have to collect various data using various methods. There are various types and approaches of assessment like Norm referenced tests, Criterion reference tests, Curriculum bases assessment and teacher made tests so on. We need to know the assumptions and scope of each type of test otherwise we may tend to overuse or under use. and thus jeopardizing the very purpose of assessment. This unit is going the present the various types and approaches of assessment.

We have discussed the purposes for which assessment is carried out. To call a child mentally retarded, ie., for the purpose of diagnosis, a comprehensive assessment is to be done which consists of medical assessment, psychological assessment, educational assessment, behavioural assessment and finally ecological assessment. After the diagnosis, the child is referred to an appropriate educational programme for intervention. So educator should be aware about the areas of assessment.

Documentation is a vital process in any programme. It makes the programme more system dependent than a person dependent. It helps in reviewing and evaluating a programme objectively, thus leading to quality in the programme and a scope for improvement. In the area of special education it is all the important as the children have unique needs and the programming requires multidisciplinary team involvement. Further, the services are not only provided in schools but also in varied settings. All these need to have systematic records and plans for action. In this unit we will see the important of documentation and methods of documentation. This unit is also intended to orient you the various aspects of result interpretation and report writing.

2.2 Objectives:

After going through this unit the reader should be able to:

- Demonstrate the understanding of meaning of assessment
- Explain the purposes of assessment

- Apply the various methods of assessment in their practical work.
- Explain the rational and relative merits and demerits of CRT & NRT
- Explain the various aspect of CRA and Teacher made test
- Understand that there is a need for carrying out different areas of assessment depending on the purpose.
- Understand that a comprehensive assessment which includes medical, psychological and educational assessment is required for diagnostic purpose.
- Understand the various tools for assessing various areas like medical, psychological and educational.
- Understand the importance of ecology for programme planning.
- Demonstrate the understanding of meaning of documentation, its important and methods of documentation.
- Know about the interpretation and its levels
- Explain the significance of report writing for different purposes
- Identify the points to be kept in mind while writing reports for educational planning
- Tell the kinds of administrative decision to be taken at the context of children with mental retardation
- Explain the meaning of inclusive education and changing trends in assessment in inclusive set up
- Discuss the adaptation of assessment in inclusive education

2.3 Concept, Meaning, Definition and Purpose of Educational Assessment

2.3.1 Definitions of Assessment

Assessment involves the systematic collection, organization and interpretation of information about an individual to decision to be made about him/her (Sundberg and Taylor, 1962).

Assessment as the me of various instruments (test, inventories, observation and so on) utilized in identifying skill levels and ascertaining progress (Logan, 1977).

Educational assessment refers to the process of gathering and analyzing information in order to make instructional , administrative and / or guidance decisions about, or for an individual (Wallace, Larsen and Elkinson, 1992).

Assessment is any of variety of procedures used to gather information about the student performance (Linn and Gronlund, 2000).

Assessment is the process of gathering information to monitor progress and make educational decisions if necessary (Overton, 2004).

There will be abundant definitions of assessment but all agree that it is a systematic process, which requires gathering of information, and it has purpose. The purpose is to make a diagnosis and programme planning. In the context of education the purpose is to make an educational management.

2.3.2 Purposes of Educational Assessment

Anyone who is involved in the assessment process should know clearly the purpose for which he is conducting the assessment. This is very important as it decides the type of assessment tools and means of gathering information for decision making.

There are many purposes of assessment. They are:

- Initial screening and identification,
- determination and evaluation of teaching programmes and strategies (pre-referral intervention),
- Determining eligibility
- determination of current performance level and educational need,
- decisions about classification and programme placement,
- Development of educational programmes (including goals, objectives and evaluation procedures).
- Evaluation of the effectiveness of the Individualized Educational Programme.
- Monitoring Student Progress

Initial screening and identification

- The students who require special attention or special educational services arc initially identified through assessment procedures. The procedures involve either informal procedures such as observation or error analysis or formal procedures such as achievement or intelligence tests. In other words, assessment is used to identify the children who warrant further evaluation.
- Assessment is also used to screen children who are considered to be ‘‘high risk” for developing various problems. These children would not have yet developed deficiencies requiring special education, but they do exhibit certain behaviours that suggest problems in future. Identifying such children allows continuous monitoring of problem areas and designing of stimulation programme if required to prevent the problem.

Assessment for initial identification purpose therefore is used to identify individual who might need further detailed assessment or who might develop problems in future. Further, it identifies individuals who with some type of immediate remedial programme might be able to cope with the problem.

Evaluation of teaching programme and strategies (pre-referral)

One of the important roles of assessment is to determine appropriate programme and strategies. For this purpose, information is used in four ways.

- First, prior to the referring of a student to special education programme, it can assist regular teacher in determining what to teach and the best method to teach.
- Second, it serves as a method of evaluating the effectiveness of the particular teaching programme or strategy. Many a time a formal referral for special education can be avoided if assessment information is used in this way. That is assessment information can be used to develop and evaluate pre-referral intervention programming. For example, a student X is getting poor marks in subjects as he makes a lot of spelling mistakes. Before making a formal referral to special education services, thinking that the student may be learning disabled, the regular teacher may assess and analyze the work product (spelling errors) of the student and provide a remediation programme. If student shows progress, further referral to special education services can be avoided.

- Third, in determining appropriate programmes and strategies, assessment can provide pre-referral information to document the need for a formal referral. As explained above, if pre-referral intervention fails to remediate the spelling problem, then there is a need for referring the student for special education programmes.
- Fourth, the pre-referral intervention information can be incorporated into the individual education programme for student who are eligible for and who ultimately receive special education.

Determining Eligibility

Educational assessment is performed to establish whether a student qualifies for special education, to determine whether the student has a school performance problem related to a handicap. To receive special services, student must meet eligibility requirements established by state department of education, USA, based upon P.L. 94-142. A Student's intellectual, academic, sensory, and other abilities are analyzed to establish the seventy of any disability. If the student's performance and other data meet the standards, the student is eligible for special services. In addition, the school may receive federal and state government support to help pay for the provision of services.

Assessment at this level is more in depth than that done for screening. Individual tests are given in major areas of school achievement, in social skill development, in intelligence, and in other related areas. Useful information is collected in various settings and from a variety of sources.

Determining of current performance level and educational need

The assessment of current performance level of a student in subjects or skills is essential to state the need for special education programme. This information helps the teacher or examiner:

- to identify subject(s) or skill(s) that need special assistance.
- to identify strengths and weaknesses of students.
- to select appropriate strategies and procedures.
- to identify general areas in which the student needs additional help.
- To determine possible remedial approaches for the students.

Decision about classification and programme placement

The assessment data is used for classification and placement of students with special needs in appropriate special educational programmes. Theoretically, individuals are classified to indicate similarities and relationships among their educational problems and to provide nomenclature that facilitates communication within the field (Taylor, 1993). Based on assessment information students are classified and suitable placement decisions are made. For example, a 6 year old child who is diagnosed to have mental retardation needs a placement in special education programme which provides education to children with mental retardation.

Development of Educational Programme (Individual or Group)

The most important use of assessment information is to determine the goals and objectives, and strategies to teach children who are identified to have special educational needs. As each individual child's needs are different, we have to plan educational programme that meets the needs. A systematically planned individualized educational programme is a blueprint for teachers to follow. The plan also outlines the duties of special and regular educators and support personnel

Evaluation of the effectiveness of the Individualized Educational Programme

Evaluation procedures are also specified in Individualized Educational Programme along with goals, objectives, methods and materials. Using these procedures, the teacher has to periodically monitor the progress made by the student. The monitoring of the programme gives feedback (positive or negative) to both teacher and student. Based on the type of feed back, the teacher either changes her plan or continues the same plan or select a new activity. For example, on periodic evaluation if the child shows improvement, the teacher will continue with her plan, if no improvement is shown she may have to make changes in 1EP.

Monitoring Student Progress

The reason for assessment is to monitor the progress of the exceptional student during the program. Information is gathered about the immediate effects of instruction. A variety of procedures documented the level and kind of achievement of states goals and objectives. Of particular interest is any information used to make programme modification. Informal assessment procedures and a blend of assessment and leaching are particularly helpful at this level.

2.4 Methods of Assessment - Observation, Interviews and Rating Scale

Methods of Assessment

The assessment process involves collection of data through various modes. This is essential as the assessor or teacher aims at collecting information in all the areas of development of a child, which helps the teacher/assessor in making appropriate decisions. The assessment information can be collected from primary sources and secondary sources. Primary sources are those which give us direct information. The information given by the student, the teacher's observation are the primary sources. Gathering information from any sources other than observing and interviewing the individual is secondary sources, e.g. parents, teachers, family members, case files, test reports etc. Primary sources are more reliable, as they provide direct immediate information. Secondary sources augment the information gathered from the primary sources. Whether both are required it depends on the situation. Therefore, they are not mutually exclusive but complimentary to each other. Common methods of assessment are as given below:

- Observation
- Interview
- Rating Scale
- Testing
- Experimentation
- Clinical Investigations
- Case Study

2.4.1 Observation

Observation, as a fundamental technique of data collection, refers to watching and listening to the behavior of other persons over time without manipulating and controlling it and record findings in ways that allow some degree of analytical interpretation and discussion. Thus, observation includes broadly selecting, recording and encoding behavior for empirical aims of description.

(a) Purpose of observation

Mehrens and Lehmaun (1984) suggest the following advantages:

1) Frequent observation of a student work can provide a continuous check on progress and can detect errors as they arise and take corrective action quickly

2) Observational techniques are not so time consuming or threatening for the student as are achievement tests and

3) Observational data provide teachers with valuable supplemental information much of which could not be obtained in any other manner.

4. One major purpose of observation is to capture and study human behavior as it actually happens.

5. Another purpose of observation is to provide a graphic description of real life that cannot be acquired in other ways.

6. Another purpose of observation is exploration. When the investigator observes human behavior in a real life setting, he gets a good chance to explore those variables which were important but overlooked.

(b) Types of observation

On the basis of the ability of observational data to generate useful and researchable information,

1. Systematic observation:

   Systematic observation is one which is done according to some explicit procedures as well as in accordance with the logic of scientific inference.

2. Unsystematic observation:

   Unsystematic observation is a type of causal observation made by the investigator without specifying any explicit objective inference.

On the basis of role played by the investigator:

1. participant observation:

As its name implies, in participant observation the investigator actively participates in the activities of the group to be observed. Here the investigator already be the member of a group or organization and decide to observe it under one or more situations.

2. Non-participant observation:

Non-participant observation is the observation in which the investigator observes the behavior of the other persons in a natural setting but does not remain a

participant in the activities being observed. Non-participant observation is usually structured and therefore the observer preplans the likely nature of the natural setting.

2.4.2 Interview:

Information is also gathered regarding the student's social skills, and the management of student in various environments and situations through interviewing parents, family members and others and the student himself. The procedure for interview is different from that for the questionnaire , but both have the same aim, and it is to obtain data regarding the respondents with minimum bias and maximum efficiency. Interview is a face to face situation or over telephone between the interviewer and the respondent, which intends to elicit some desired information from the latter. Thus an interview is a social process involving at least two persons, the interviewer and the respondent.

2.4.2.1 Types of Interview

There are 2 types of interview , namely, formal interview and informal interview.

A formal interview may be defined as one in which already prepared questionas are asked in a set order by the interviewer and answers are recorded in a standardized form. It is also known as structured or patterned interview.

An informal interview is one where ther are no pre-determined questions nor is there any pre set or of the questions and it is left to the interviewer to ask some questions in a way he likes regarding a number of key points around which the interview has to be built up. As most things depends upon the interviewer, the situation remains unstructured and therefore such an interview is also known as an unstructured interview.

2.4.2.2 Advantages of Interview

1. An interview allows greater flexibility in the process of questioning.
2. It facilitates the investigator in obtaining the desired information readily and quickly.
3. It facilitates the investigator in being sure that interviewees are themselves interpreted and answered the questions. This increases the validity of the conclusion arrived.

2.4.2.3 Disadvantages of Interview

1. Validity and dependability of verbal responses:

   In an interview, the interviewees verbally answer the questions asked by the interviewers. Social scientists have grave doubts whether a person actually behaves the way he processes to behave.

2. Time:

   The interview takes much time in its completion because each respondent or interviewee is interviewed individually and the records of the verbal interaction of each respondent is kept individually.

3. Recording information:

   How to record information being given by the interviewee is also a problem in interviewing. No foolproof system of recording has yet been worked out to every body's satisfaction.

2.4.3 Rating Scale

In observation or in other techniques of data collection, as well the researcher needs to assess the attributes of individuals or objects. Rating scale is helpful tool in this regard and is much used. Barr, David and Johnson have defined rating scale as a ''term applied to an expression of opinion or judgment regarding some situation, object or character". According to Lokesh Koul, it can be defined as a "Scale with a set of points which describe varying degrees of the dimension of an attribute being observed".

Ratings can be done across a scale that may be 3 point, 5point, 7point or more. Experienced researchers opined that too narrow a range may fail to reflect inter-individual differences whereas rating across too wide a range may be complicated. That is why most researchers construct their scale in 5 point orTpoint continuum.

2.4.3.1 Types of Rating Scale

A Rating Scale can be categorized into several types depending on the mode of rating. Guildford has classified it according to the following categories:

- Numerical Scale
- Graphical Scale

- Standard Scale
- Rating by cumulative points
- Forced choice rating

Numerical Scale:

Numerical Scale is one in which rating is done according to a set of numerates or a set of descriptors. In the later case the rater need not use numerals in rating. The researcher assigns the appropriate numbers afterwards. In that case no number is presented to the rater.

Example :

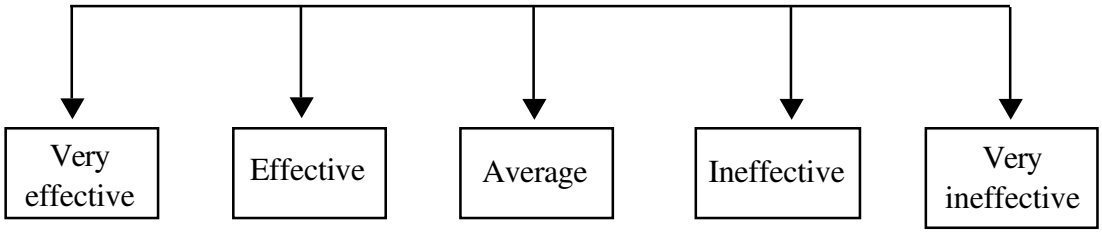
Response Category	Assigned Number
Strongly Disagree	1
Disagree	2
Indifferent	3
Agree	4
Strongly agree	5

It is advisable to avoid 0 or negative numerals (-1, -2 etc.) for case of scoring and for avoiding confusion in the rate.

Graphic Rating Scale:

In a graphic rating scale, various cues were presented to the rater graphically along a line or line segments placed either vertically or horizontally. The cues correspond to different degrees along a continuum. The rater ticks at the place which he thinks appropriate. The rater need not deal with numbers which makes the task easy for some raters. The appeal of visual presentation is better as well as the example:

How effective was the presentation of the teaching learning material in the class:



Standard Scale:

Standard scale is one in which the rater is presented with some standards with pre - established scale values. These standards usually consist of objects of the same kind. As an example the Man-to -Man Scale and Portrait Matching, which are based upon the principles of the standard scale.

Rating by Cumulated Points

Rating scales based upon cumulated or summated points are the most common. Here the person's total score is the sum of individual ratings or points assigned to all items of the scale, Such points may be weighted or un-weighted.

Forced Choice Rating Scale

In the forced choice rating scale the rater is given a set of attributes in terms of verbal statements for a single item and he decides which one or ones represent the individual being rated most appropriately and accurately. The items of the force choice scale may have several alternatives -two, three, four or five.

2.4.3.2 Advantages

1. Rating Scales have a much wider field of application like teacher ratings, personality ratings, classroom transactional analysis etc.
2. It is quick, interesting and easy to apply.

2.4.3.3 Limitations

1. Error of Central Tendency:

It is the general tendency of the raters to avoid the marginal terms and to rate near the average.

2. Error of leniency:

Most of the raters rate inappropriately for a person whom he likes and vice-versa.

3. Halo effect:

It is almost a universal tendency to rate the specific trait of a person in terms of the general impression about him.

4. Reliability and validity of rating scale is low.

2.4.4 Testing

Testing the child and knowing the ability of a child yourself is always recommended as it provides first hand information. For example, instead of asking a parent whether her child can read and write words, or numerals, you test the child yourself using appropriate materials to check. If we depend on parents for information, we may miss out on identifying specific problems/content which In turn hinders further learning. To explain further, the parent may say that her son is able to read and write numerals upto 10. When you ask the boy to read the numerals by pointing not sequentially, he may read incorrectly, but, he could say orally 1-10 in sequence. If we had taken the parents information on face value, we would have selected the content for teaching numerals from 11 to 15 or 20 as an objective, which is inappropriate as per the child's ability. On the other hand, what is required is that, the boy should be taught to read the numerals independently when presented not sequentially upto 10. Hence, it is necessary always to test the child directly by the teacher/assessor to know the current performance level of the child. However, there may be some activities, for which the teacher may not be able to test the child directly (eg. Taking bath, behaviour of a child during social functions in the family, in the community, interaction with friends and neighbours) and has to collect information from family members. While selecting a test it is important to see whether it is valid for the purpose it is being used, reliable, objective, simple, cost-effective and ecologically valid or not. Lastly but most importantly, the test should be compatible to the child's abilities.

2.4.5 Experimentation

Sometimes, we may not get information either from observation, interview or testing. For example to understand the efficacy of social rewards and material rewards, the .teacher ma\ observe the student's performance under tow conditions- one, involving contingent presentation of social rewards and the other with material reward. Finally the teacher may draw necessary conclusions depending on the student's performance. However, experiments are not as simple as exemplified here. They require systematic

planning and stringent analysis of the information. If properly planned, experiments provide information on cause - and -effect relationships.

2.4.6 Clinical investigation

This method generally refers to medical investigation. Therefore, it has got less relevance in special education. Examples of this are CT scan, EEC, MRI, Thyroid Profile, Chromosomal Analysis, Serum Estimations, Hearing and Vision Tests etc. However, the data provided by these investigations may have indirect bearing on certain classroom activities. Report on vision will certainly help teachers making decisions on the seating arrangement, colour and presentation of the teaching- learning material: illumination of the class. Similarly, student's EEG indicating epilepsy will help the vocational instructor protect the child from accidents in work area.

2.4.7 Case Study

Case Study utilizes all or some of the above methods to record the significant events and put them in a chronological order. It is the method of behaviour investigation in which we try to study the behaviour of an individual in all the essential aspects by analyzing the past record,, present position and future possibilities regarding his felt problem or otherwise guidance functions. The data arranged so will give meaningful information about the causality of specific conditions and problems with reference to the individual. The preparation of a case study is not the work of a single individual but the combined venture of social worker, teacher, parents, medical professional, psychologist and others professional as required.

2.5 Types and Approaches of Assessment-NRT, CRT, CBA & Teacher Made Test

2.5.1 Types and Approaches of Assessment

Assessment has assumed lot of importance in key areas of life, as they have the potential to provide comprehensive and systematic information about the individual along a given dimension of behavior. Assessment is done for various purposes including estimation of intelligence, profiling aptitude, behavior and specific skills and so on. Following are the types of assessment.

- Norm Reference Tests (NRT)
- Criterion Reference Tests (CRT)
- Curriculum Based Assessment (CBA)
- Teachers' Made Tests (TMT)

2.5.1.1 Norm Referenced Tests (NRT)

Norm Referenced Assessment or Norm Referenced Testing (NRT) is the more traditional approach to assessment. These tests and measurement procedures involve test materials that are standardized on a sample population and are used to identify the test takers ability relative to others. It is also known as formal assessment.

Norm referenced assessment is defined as a procedure for collecting data using a device that has been standardized on a large sample population for a specific purpose. Every standardized assessment instrument will have certain directions that must be followed. These direction specify the procedure for administering the test and ways to analyze and interpret the results and reporting them. Examples of the more commonly known formal assessment devices are the Wechsler Intelligence Scales for children Revised (WISC-R), The Illinois *Test* of Psycholinguistic Ability (ITPA), The Stanford-Binet Intelligence Test and the Peabody Picture Vocabulary Test — Revised (PPVT-R) and Peabody Individual Achievement Test (PIAT).

(a) Advantages of norm-referenced assessment

Norm referenced tests are widely used in special and remedial education for many reasons.

- The decision of categorizing the children as exceptional or special is mainly based on the test results of NRTs.
- It is easy to communicate test results to parents and others unfamiliar with tests.
- Norm-referenced tests have received the most attention in terms of technical data and research. They are specifically useful in problem identification and screening.
- To gel a reliable rank ordering of the pupils with respect to the achievement we arc measuring.
- To identify the pupils who have mastered the essentials of the course more than the others.

- To select the best of the applicants fora particular programme.
- To find out how effective a programme is in comparison to other possible programme.

(b) Disadvantages of criterion referenced assessment

The use of norm referenced tests data for the purpose of educational programming is questioned in many instances for the following reasons.

- Information obtained from norm-referenced testing is too general to be useful in everyday classroom teaching. Many educators disregard the prognosis and interpretative types of data provided by standardized tests because the information is often not directly applicable to developing daily teaching activities or interventions. What does knowing a child's WISC-R score or grade equivalent in reading specifically tell a teacher about what and how to teach? For instance, what is important is to know whether the child needs to learn initial consonants or is he having difficulty with comprehension.
- NRTs tend to promote and reinforce the belief that the focus of the problem is within the child. It is because the primary purpose of NRTs is to compare one student with another. However, although a child may differ from the norm, the real problem may not be within the child but in the teaching, placement or curriculum. Educators must begin to assess teacher behaviours, curriculum content, sequencing and other variables not measured by norm referenced tests.
- It is a mechanical process
- It cannot help assessing the other required aspect as it failed during assessment.
- It failed to collect information in totality as individual may not respond in good.
- There is a chance of exaggerated or sub average information.

2.5.1.2 Criterion-referenced assessment (CRTs)

Criterion-referenced assessment is concerned with whether a child is able to perform a skill as per the criteria set, or not. In contrast to norm referenced assessment, which compares one persons performance to others, criterion referenced assessment compares the performance of an individual to the pre-established criteria. In criterion-

referenced test, the skills within a subject are hierarchically arranged so that those that must be learned first are tested first.

Glaser introduced the term criterion reference test (CRT) and defined it is a measure which assess student achievement in terms of a criterion standard thus provide information as to the degree of competence attained by a particular student which is independent of reference to the performance of others (Glaser, 1963), In maths, for example addition skills would be evaluated (and taught) before multiplication skills. These tests are usually criterion referenced because a student must achieve competence at one level before being taught at a higher level.

(a) Advantages of criterion referenced assessment

The criterion-referenced test results are useful :

- To identify specific skills that need intervention.
- To determine the next most logical skill to teach as the implications for teaching are more direct with criterion referenced tests.
- To conduct formative evaluation, that is, the performance of the student is recorded regularly or daily when the skills are being taught.
- It permits direct interpretation of progress in terms of specified behavioural objectives.
- It facilitates individualized instruction
- It enables the teacher to check on the student's progress at regular intervals.
- It eliminates pressures on the teacher to " teach to the test."
- It enables teachers to compile a comprehensive record of each child's development.
- To identify the master learners and non- master learners of a class.

(b) Disadvantages of criterion-referenced assessment

- CRT tells only whether a learner has reached proficiency in a task area but does not show how good or poor is the learner's level of ability.
- Task included in the criterion referenced test may be highly influenced by a given teachers interest or biases, leading to general validity problem.

- It is important for only a small fraction of important educational achievements. On the contrary promotion and assessment of various skills is a vary important function of the school and it requires norm referenced testing.
- CRTs are difficult to obtain as they require detailed specification of objectives or out comes in behavioural terms.

2.5.1.3 Curriculum-Based Assessment (CBA)

The concept of curriculum based assessment is not new and has been employed for a number of years. CBA has been developed as a means to cope with low-achievers and children with special needs in regular schools. Further, it fits into the non-categorical model that is assessment is focused on testing curriculum-based skills and not on testing for labeling purpose.

The CBA aims to identify children's educational needs and the most appropriate forms of provision to meet those needs. Sality and Bell (1987) describes educational needs as "behaviours which a person lacks which are necessary in order to function effectively and independently both in the present and in the future".

The starting point for conducting CBA is the child's classroom. It is the suitability of this environment and the child's interaction with it that is assessed and not the child.

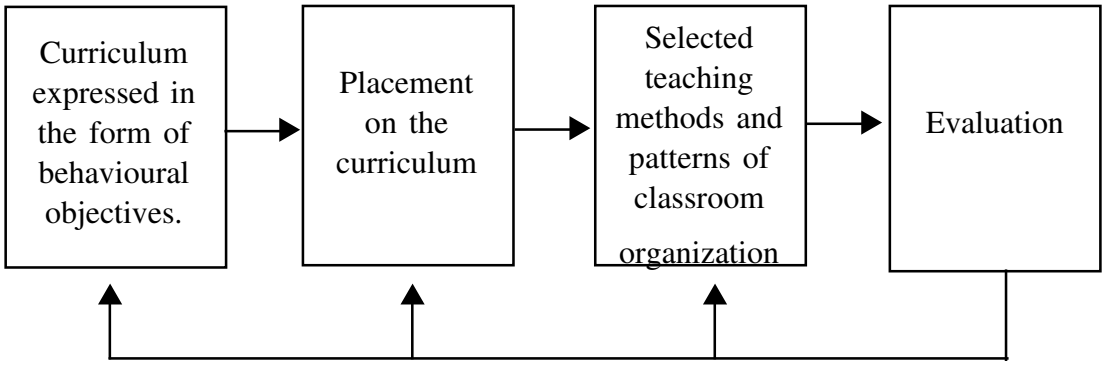
(a) Definition

CBA has been defined by Blankenship and Lilly (1981) (quoted in Sality and Bell. 1987; pg.35) as the practice of obtaining direct and frequent measures of a student's performance on a series of sequentially arranged objectives derived from the curriculum used in the classroom. It helps in finding out the current level of a student in terms of the expected curricular outcomes of the school. In other words, assessment instrument is based on the contents of the student curriculum. Some types of CBA are informal, while others are more formal and standardized.

(b) Procedure followed in developing CBA

- The first stage in the process requires that the curriculum be defined as series of tasks which are sequenced and expressed in the form of behavioural objectives.

- Placement in the curriculum helps to identify which skills have been learned and those which need to be taught in the future. It pinpoints exactly where a child is on the curriculum.
- Selection of suitable teaching methods, materials and patterns of classroom organization for teaching.
- Evaluating children's progress - relates to the selection of teaching methods, patterns of classroom organization and choice of curriculum.
- Curriculum Based Assessment can therefore, be seen as a procedure which sets up situations where links are established between various teaching approaches and pupil progress.



(Souree: Sality and Bell (1987) pg.36)

(c) Relationship between CRT and CBA

Curriculum based measures are a kind of CRTs but they differ from the core CRTs by having direct link with the curriculum taught in the classroom. In other words, the items that constitute the CRTs are taken directly from the curriculum. For example, both the Madras Developmental Programme System (MDPS) and the Grade Level Assessment Device (GLAD) are CRTs but only the latter is a curriculum based measure, as it provides a direct link to the curriculum taught at a specific grade.

2.5.1.4 Teachers' Made Tests (TMT)

While formal intelligence and achievement tests can be useful for gaining extra finding for students with diverse abilities, and in some instances for assisting with programming, they often do not help teachers discover what a child already knows and what a child needs to learn in relation to the curriculum. In order to successfully program for any student, teacher must first know the 'starting point' fro which they can teach. The best way for teachers to discover what their students know and can do is through teacher- based assessment/tests. There are some commercially produced assessments available for teachers to use: however, the most effective assessments for the classroom are often those developed by individual teachers themselves. The basic philosophy of the teacher made tests is that the teacher's decisions are important in deciding the criteria. Defined this way, all the informal measures could be teacher made CRTs.

Teacher-made tests are written or oral assessments that are not commercially produced or standardized. In other words, a test a teacher designs specifically for his students. Teacher-made tests can consist of a variety of formats, including matching items, fill~in-the-blank items, true-false questions, or essays.

(a) Advantages of TMTs

- Provide teachers with the means to gather evidence about what their students know and can do.
- Help instructors identify students' strengths and weaknesses. -Keep tabs on student learning and progress.
- Help teachers plan and conduct future instruction.
- Motivate and shape learning and instruction.
- Guide students toward improving their own performance.
- Gauge whether students are mastering state level educational standards.
- Determine if students are prepared for the high-stakes tests.

(b) Limitation of TMTs

- They are often ambiguous and unclear
- They are either too short or too lengthy
- They do not over the entire content
- They are usually hurriedly conducted

Inclusive classrooms are those which primarily compare a child's progress with his/ her own past performance in a variety of different areas across the curriculum. In that case these are the most helpful types of assessments for teachers. A combination of curriculum based assessment and intelligence assessment can be helpful in giving teaching and learning some appropriate direction.

2.6 Areas of Assessment - Medical, Psychological, Educational, Behavioural & Ecological

2.6.1 Medical Assessment

Clinical assessment is a part of assessment in the process of diagnosis of persons with mental retardation. It is carried out to identify the cause of mental retardation, refer to further investigations to confirm the cause and other anomalies and to plan and evaluate treatment.

The individual's current health, vision and hearing status are generally assessed by medical members of the assessment team. Medical assessment may include a health history, physical examination and any necessary laboratory tests. For example, if it is suspected that a persons may have mental retardation due to genetic problems, to confirm he is referred to necessary laboratory tests. Following medical can be done to diagnose the mother and child as 'at risk'.

2.6.1.1 Prenatal Stage

i. Blood Tests in the Mothers

- Hemoglobin levels (Hb%) to detect anemia.
- Blood glucose levels to detect diabetes.
- Blood VDRL to detect syphilis.

- Blood group and Rh typing for blood group incompatibilities.
- Blood antibody liters to detect specific infections.
- Alpha foeto- proteins to detect neural tube defects in the foetus.

ii. Ultrasonography (During Pregnancy)

iii. Maternal Serum AFP (Alpha- fetoprotein)

iv. Multiple Marker Screening

v. Chorionic Villous Sampling

vi. Amniocentesis

vii. Ultrasound

viii. Fetoscopy

2.6.1.2 Neonatal and Post-natal Screening and Diagnostic Procedures

- APGAR Score.
- Urine screening for metabolic errors- examples. PKU (phenyl ketoneuria).
- Blood biochemistry test for cretinism, Rickets, Jaundice etc.
- Blood antibody titers to detect infections.
- Chromosomal analysis for Down Syndrome, Deletion syndromes etc.
- Neonatal neuro-behavioural assessments.
- EEG (Electro-encephalogram) for seizure disorder.
- Visual Screening for visual impairments (visual acquity, funds examination, retinoscopy etc.).
- Auditory screening - for hearing impairment (Tympanogram, BERA etc.)
- Ultra sonography.
- CT Scan (Computerized tomography).
- MRI (Magnetic Resonance Imaging) for intracranial pathology and structural abnormalities.

2.6.2 Psychological Assessment

Psychological assessment is the process of systematic collection, organization and interpretation of information about a person and situations, and the prediction

of the person's behaviour in a new situation. Psychological assessment encompasses assessment of the three major aspects of the mind namely, cognition, conation and affection. Psychological assessment involves understanding of the causes of the problem and the potential solutions for the problem.

The purpose of psychological assessment is to evaluate an individual or group of persons in relation to a specific issue or problem. These may include intellectual functioning, learning disabilities, special abilities, scholastic achievement, personality functioning, emotional and social areas and questions of normality and abnormality. The psychologist develops hypotheses based upon information or past behaviour, present behaviour and prediction for future behaviour as defined by given situations incorporated in assessment information.

Two major criteria are considered for the assessment of children with mental retardation :

i) Level of Intelligence

ii) Adaptive Behaviour

2.6.2.1 Level of Intelligence

Definition:

The widely accepted and most commonly used definition of Intelligence is as follows:

''Intelligence is the aggregate or global capacity of an individual to act purposefully, to think rationally and to deal effectively with the environment" - David Wechsler (1975).

Level of intelligence is assessed by intelligence test (whether it may be individual or group test) is psychological in nature. Intelligence test provides 1Q (Intelligence Quotient) which is the index of mental maturity and cognitive functioning. Intelligence assessment has an important role in mental retardation, as sub -average intellectual functioning is one of the criteria of diagnosis. Intelligence is estimated only by applying intelligence scales. Based on its content intelligence scales are divided in to verbal and performance / non verbal scales. Though there are group tests that can be administered on many at ones, individual tests are preferred for intelligence

testing, which requires observations of the individual characteristics such as attention, problem solving skills , motivation. Some of the commonly used tests are shown below:

Showing commonly used intelligence scales in India

Verbal Scales	Non- Verbal Scales	Performance Tests
• Binet - Kamat Test of Intelligence (Kamat, 1967)	• Raven' s Progressive Matrices Test - norms by Deshpande et. al. (2002)	• Seguin From Board Three normative data arc available (Bharat Raj, 1971; Verma et. al. 1973; Ramachandran, 1985).
• Stanford Binet Intelligence Scale (Kulshreshtha, 1971)	• MISIC – Performance Scales (Malin, 1971)	• Gessell's Drawing Test (Verma et al. 1972; Venkatesan, 2002).
• Malin's Intelligence Scale for Inida Children (MISIC) — Verbal Scales (Malin, 1971)		• Draw – A-Man Test (Pathak, 1951)

2.6.2.2 Adaptive Behaviour

Definition

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

Assessment of Adaptive Behaviour

The behaviour of an individual changes regularly, depending on the types of social situations to which the individual has to respond. Many behaviours which are

appropriate in one setting could be totally inappropriate in another. The time and place and some times the age determines the appropriateness of a behaviour. The behaviour by itself is not 'good' or 'bad'. For example, sleeping in the bedroom versus classroom. Sleeping, which is an essential biological need becomes an inappropriate behaviour in the classroom, whereas, the same behaviour in the bedroom becomes an appropriate behaviour. The mentally retarded persons are known to exhibit inappropriate behaviour due to skill deficits or inability to perceive the appropriate behaviour for a given situation. Hence, the purpose of measurement is to determine what areas need special help, or special training in a particular situation.

Adaptive behaviour assessment determines the current level of functioning of the individual. It reflects the strengths of the individual as well as the weaknesses. Hence, the primary reason for measurement is an effort to help the individual to learn to improve themselves and to function within the socially acceptable norms. Adaptive behaviour assessment, which is based on the direct reporting of observable behaviours gives specific information on the assets and deficits of the individual. The reason for the deficits or not doing a task may fall into the following categories.

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

b) The individual may have certain physical limitations which prevent the performance of those behaviours.

c) The individual may be totally under-motivated for those particular behaviours because of certain cultural patterns or experiences.

Adaptive behaviour scales / Tools for assessment of adaptive behaviour

the adaptive behaviour, which projects our behaviour in the personal and social areas, reflects our ability to respond to the environment. Thus adaptive behaviours come under the broad domains of functional independent skills, personal and social responsibility, and independent living skills. These elements combine to form an organized behavioural pattern ofthe individual. Some ofthe popular adaptive behaviour scales used for assessing the mentally retarded persons are:

SI. No.	Name of the Scale	Approach	Age Group	Remarks
1	Vineland Social Maturity Scale (VSMS; Malin, 1968;bharatraj, 1992)	Normative	Applicable for 0-15 years; but is used with any age group of suspected cases of mental retardation	Yields social quotient (SQ). Provide a profile of adaptive behavior domains Indicates just the target areas.
2	Madras Developmental Programming System (MDPS) – (Jeyachandran &Vimala, 1975)	Criterion	Not defined from age point of view-but appears to be applicable for age 3 years and above, as the items reflect content from primary level and upwards.	One of the first test of its kind in India. Useful for Individualized Programme Plan.

2.6.3 Educational Assessment

Educational assessment is a central aspect of evaluation of special education. Educational assessment is the measurement of student performance before and after instruction and includes reading, mathematics, spelling, writing and scholastic subjects in the school curriculum or skills required for independent living. The information coming from psychological test reports will only tell us whether certain prerequisites necessary for academic achievement are present or not. But to know the exact level of academic level, processing error if any. we need details educational reports.

2.6.3.1 Need for Educational Assessment

- To determine strengths and weaknesses in academic achievement
- To screen students who may have deilcits in academic achievement
- To identify, classify, and place students with deficits in achievement
- To plan instructional programmes and develop intervention activities
- To develop lEPs
- To evaluate student progress
- To monitor program effectiveness.

To assess a child, two major types of testing are done i) Norm Reference Test (NRT) and ii) Criterion Referenced Test (CRT). Both has been discussed earlier.

2.6.3.2 Tools for Educational Assessment

Some of the Western Achievement Tests used for children with learning problems include;

- Peabody Individual Achievement Test (P1AT)
- Wide Range Achievement Test (WRAT)
- Kaufman Assessment Battery for Children (K-ABC)
- Brigance Diagnostic Inventories
- Bender Visual Motor Gestalt Test
- Developmental Test of Visual Motor Integration
- Peabody Picture vocabulary Test
- Woodcock Johnson Psycho educational Battery.

Some of the suitable screening and assessment tests for use by teachers developed in India include:

- Diagnostic Test of Learning Disabilities (S. Swarup & D. Mehta)
- Behavioural Checklist for Screening the Learning Disabled (Swarup & Mchta)
- Grade Level Assessment Device for Children with Learning Problems in Primary Schools (J. Narayan)
- Arithmetic and Diagnostic Test for Primary School Children (Ramaa, S.)

2.6.4 Behavioural Assessment

It facilitates understanding of whole range of behaviours including the skill behaviours and problem behaviours. The assessment explains the behavior as a function of environmental conditions (e.g. stimulus, positive and negative consequesces). and provides a meaningful link between the skill behaviours and problems behaviours. Example, taking others[1] objects without permission (i.e. problem behaviour) may be due to lack of language skills (i.e. skill deficit). Restlessness in class may be linked with inability to follow instructions. At milder level they interfere with teaching-learning, in extreme cases they a potential reason for stigmatization, institutionalization. Taken together, profile of skill behaviours and problem behaviours also suggest possibility of associated developmental disorders such as autism, ADSH etc. Therefore, assessment of both skill behaviours and problems behaviours is required for programme planning.

2.6.4.1 Rational of Behavioural Assessment

- This approach postulates that behaviours are learned. It means every behavior develops with practice and experience. For example, shelf help skill, academic skills, academic skills are learned in informal and formal situations, respectively.
- Behaviouras are likely to increased when they are rewarded. Fro example, when a child is appreciated for taking bath of doing his homework, he is more likely to repeat that particular behavior.
- Behaviours are likely to decrease when they are not rewarded or punished.
- Behaviours occur with various intentions, for example, certain behaviours fetch us materials, attention/ social approval of others, or keep us occupied, or let us escape from a situation.
- The key to change the behaviours is to study what triggers the behaviours (i.e. antecedents) and what maintains or reduces the behaviours (i.e. the consequences wuch as rewards, punishment procedures), and what benefit (i.e. the function) the child derives through this behavior.
- Antecedents provide information on the reason, time, place and person triggering the behaviours. While consequences include the present ways of management of the behavior.

2.6.4.2 Assessing Behaviours

Behavioural assessment can be done through informal methods such as observation and interviewing and formal methods sueh as rating scales. The main problem with informal method is comprehensive assessment is not possible. Secondly, the observer's presence might change the course of the behviours. Lastly, particular behavior may not occur when we want to observe. Otherwise, observation is the convenient, inexpensive method. Formal assessment can be done using the following scales given below:

SI. No.	Name of the Scale	Approach	Age Group	Remarks
1	Behavioural Assessment Scales for Indian Children with Mental Retardation — (BASIC – MR; Peshawaria & Venkatesan, 1992).	Criterion	Meant for 3-18 years older persons with MR but can be suited in older groups in case of sever retardation.	Designed to assess both skill and problem behaviours. Indicates corresponding age for groups of skill behaviours
2	Behavioural Assessment Scales for Adult Living Mental Retardation — (BASAL-MR; Peshawaria et al.. 2000)	Criterion	Meant for persons mental retardation above 18 years old	Designed to with assess both skill and problem behaviours
3	Problem Behaviour Checklist (Aryaetal., 1990)	Criterion	Age group not specified	Assess problem behavior in hme and school setting.

2.6.5 Ecological Assessment

This approach stresses the importance of curricular items based on environment - instead of the "watered down curriculum'' This approach emphasizes the inclusion of those content areas necessary for independent living in his/her environment. It gives emphasize the assessment of environment of the CWSN rather than child with mental retardation. An ecological inventory involves analysis of multiple levels of environments before functional skills are identified. The first level of analysis is to identify the curriculum domain(s). Domains are settings rather than content areas. There are four curriculum domains: (a) vocational, (b) leisure/recreational, (c) domestic, and (d) community utilization. The next level is to identify natural environments with each domain, followed by identification of sub environments within each natural environment. As a next step, the planner identifies activities within each sub-environment and then skills within each activity. These include such areas as language, motor, arithmetic, self-care, and social skills. However, their occurrence is measured within a social ecology (ie.', within the four domains).

Domestic Environments:

The team considers the student's life in and around his / her actual home. Team members identify specific areas within and around the home (e.g. bedroom, bathroom, yard) where greater students participation is desired.

Vocational Environment:

For young children the vocational domain is usually in the home and school environments where children may have chores and class or school jobs.

Community Environments : These include transportation system, streets and sidewalks, and all businesses, services, and facilities in the community. For young children, school environments would have priority over other community environments. Therefore, children might receive instruction related to riding the bus and crossing streets. Others would be based on family needs.

Leisure Environments:

This will often overlap with environments previously identified because leisure activities occure in all these environments. Selection would reflect student interests and preferences. It may also be highly dependent upon interests and priorities of family members and typical peers, since thay ultimately enable the student to access the environments.

This would lead to the decision making on what the retarded child -

- Can already do
- What can be done by him with training and/ or adaptation
- What he cannot do at all

Once environments in which the student will participate are identified, the next steps in designing an individualized, ecology curriculum are to identify priority activities and routines and to identify priority skills.

Relevance

- Assessing the large group students within very short time
- To develop functional curriculum
- Activity based IEP
- Helps in normalization process
- Make positive awareness among the community members
- Community involvement
- To select appropriate vocational skills for training or independent living

2.7 Documentation of Assessment, Result Interpretation and Report Writing - Implication of all the above for Inclusion

2.7.1 Concept of Documentation

Whatever is the educational facility in which the student is being educated; appropriate documentation is of utmost importance. Right from birth history and diagnosis to disability certification, school admission, assessment, curriculum planning, implementation and evaluation, future planning, vocational training and placement leading to economic independence - all have to have records at each stage. Documentation simple means systematically storing information collected from various sources using appropriate procedures for predetermined purposes.

2.7.1.1 The Importance of Documentation

Children's learning is enhanced

- Children become even more curious, interested, and confident when they think about the meaning of what they have done.
- The processes of preparing and displaying examples of the children's experience and effort provides a kind of debriefing or revisiting where new understandings can be clarified, deepened, and strengthened.
- Children also learn from and are stimulated by each other's work in ways made visible through the documents displayed.
- A display documenting the work of one child or of a group often encourages other children to become involved in a new topic and to adopt a new method of doing something.

Children's ideas and work are taken seriously

- Careful and attractive displays can convey to children that their efforts, intentions, and ideas are taken seriously.
- These displays are not intended primarily to serve decorative or show-off purposes.
- An important element in the project approach is the preparation of documents for display by which one group of children can let others in the class working on other parts of the topic learn of their experience and findings.

- Documentation encourages children to approach their work responsibly, with energy and commitment, showing both delight and satisfaction in the processes and the results.

Children's learning made visible

- Documentation provides information about children's learning and progress. The focus is on how children making meaning, of how they come to understand.
- While teachers often gain important information and insight from their own first-hand observations of children, documentation of the children's work in a wide variety of media provides compelling public evidence of the intellectual capability and competence of young children.
- Documentation uncovers the learning process as it highlights children's theories, interests and relationships.
- Conversation or dialogue is used to present children's words as serious attempts to understand concepts and ideas.

Teachers plan and evaluate with children

- Continuous planning is based on the evaluation of work as it progresses.
- As the children undertake complex individual or small group collaborative tasks over a period of several days or weeks, the teachers examine the work each day and discuss with the children their ideas and the possibilities of new options for the following days.
- Planning decisions can be made on the basis of what individual or groups of children have found interesting, stimulating, puzzling, or challenging.
- Experiences and activities are not planned too far in advance, so that new aspects of work can emerge based on children's interests and be documented.
- Teachers reflect on the work in progress and the discussion that surrounded it, and consider possible new directions the work might take
- When teachers and children plan together with openness to each other's ideas, the activity is likely to be undertaken with greater interest than if the child had planned alone, or the teacher had been unaware of the challenge facing the child.
- The documentation provides a kind of ongoing planning and evaluation that can be done by the team of adults who work with the children.

Teacher research and progress

- As teachers examine the children's work and prepare the documentation of it, their own understanding of children's development and insight into their learning is deepened.
- Documentation provides a basis for tweaking teaching strategies, and a source of ideas for new strategies, while deepening teachers' awareness of each child's progress.
- Using information gained through documentation, teachers are able to make informed decisions about appropriate ways to support each child's development and learning.
- Documentation explains how one activity was pivotal in understanding an issue, connecting to previous learning, or provoking a new inquiry.
- Documentation helps teachers promote a positive exchange of ideas.
- Documentation highlights the issues or problems that emerge during a study or activity.

Parents' appreciation and participation

- Documentation makes it possible for parents to become more aware of their children's experience in the school.
- Parents' comments on children's work can also contribute to the value of documentation.
- Through learning about the work in which their children are engaged, parents may be able to contribute ideas the teachers may not have thought of.
- The opportunity to examine the documentation of a project in progress can also help parents to think of ways they might contribute their time and energy in their child's classroom.
- There are many ways parents can be involved in documentation within the classroom: listening to children's intentions, helping them find the materials they need, making suggestions, helping children write their ideas, finding and reading books.

2.7.1.2 Methods of Documenting Results

Various methods of documenting evaluation results are in practice in education of children with special needs.

IEP format

The IEP form has a provision to document evaluation results after a specific duration or time period. The teacher indicates the evaluation procedure and the criteria to be achieved in IEP.

As specified in the plan, the student is evaluated, then the performance of the student is compared with the set criteria indicated in specific objective to measure the progress made by the student.

Checklists used for assessment and programming

Activity checklists are used as an alternative method to document progress in students by the educationists. The teachers who use the checklists as basis for selection of content for teaching students, also can use them to note the mastery of activities.

Task analysis checklist

Task analysis checklists are extensively used in pre and post instructional assessment of students with mental retardation. The task analysis checklist is a blue print of content of a task to be taught. It pinpoints objectively the performance level of a student and guides teacher in planning instruction systematically. Daily/weekly recording of the progress of student can be noted which helps in summarizing the results at the end of instruction. Also, it depicts the progress of a student at a glance.

Graphs

Graphing provides a visual representation of student progress and may take many forms. Progress towards a goal may be checked daily or weekly by the teacher or student. The following are some of the advantages of maintaining graphs.

a) Graphing the progress provides a continuous visual indication of progress made by the student towards a specified objective.

b) They are so sensitive that they indicate small changes, which were not apparent to teacher or student.

d) Apart from indicating the progress made by student, it shows the rate of achievement.

Constructing graphs for daily recording for all students is time consuming for teaching. However, cumulative records may be developed by teachers.

Work samples

Samples of student's work during instruction can also help in comparing the performance of a student. Areas such as handwriting, written work in language, arithmetic, and work samples are better evaluative devices to decide the mastery of learning.

Anecdotal records

Anecdotal records are brief written records of students' behaviour or incidents. They should be factual descriptions of student behaviour or incident and should be used for recording information about unanticipated behaviour. We keep hearing from special educationists making remarks that "X" spoke a word to call the attention of other child which he did not do earlier, picked up on his own tiffin box before going to the dining place, etc." Such kind of descriptions will make teachers think and understand the student better in providing instruction.

Progress Report:

Progress report is another format used for recording the achievement of students periodically. A class teacher generally records the performance/ achievement of students for giving feedback to parents/family members.

2.7.2 Interpretation

Giving meaning to different outcomes of the training programmes is essential to perceive the training package. Interpretation is a process of perceiving the pros and cons of training programmes. Interpretation helps the educative, the parents and other professional associates with the training programme to understand are relevant factors influencing the training programme.

2.7.2.1 Level of Interpretation of Assessment

- Level-I: Interpretation during the initial assessment
- Level-II: Interpretation during the training programme
- Level-III: Interpretation after the completion of training programme

Level-I: Interpretation during the initial assessment

When an individual training programme is decided for a student, it is essential to collect information about the student's background, student's present performance, student's ability and resources to be mobilized to accelerate the training programme.

Information collected from all the above factors must be interpreted to see all possible positive factors that could be integrated for the training programme.

- Interpretation of Personal Data
- Interpretation of Student's Ability
- Interpretation of Student's Performance
- Interpretation of Resources

Interpretation of Personal Data

- Prenatal, Natal, Post-natal History
- Education History
- Medical History
- Immunization Details\
- Developmental History

Interpretation of Student's Ability

It is essential to understand the student's ability in terms of intelligence and aptitude. Assessment also should focus to understand the interest and attitude of the student for different training programmes. The student's overall ability and specific ability must be assessed and interpreted to decide specific task for training.

Interpretation of Student's Performance

Student's performance must be understood from different angles. Usually the performance is elicited by using a behavioural scale during assessment. Other than the result of the behavioural scale, the past opportunity given to the student must be noted. The background information of the student like the family income, education, involving in training, and exposure and socio-cultural background must be understood for giving a conclusive statement on performance.

Interpretation of Resources

Data must be collected to understand the resources available for development of the student and training to the student. For example, toilet training to a ten years mentally retarded boy, it is essential to know a few aspects like:

- The type of toilet used by the family
- The person would be involved in training
- The cultural believe for toileting
- Cleaning system after toileting etc.

Developing teaching materials for the student must be based on the resources of the parents, if the parents are affordable to purchase highly costly materials then it will be worthwhile to prescribed such materials. On the other hand, the poor people could be advised to develop teaching materials in local available materials with less expenditure.

Level-II: Interpretation during the training programme

" It is essential to see the speed of training, and other relevant factors influencing training during different phases of the programme.

" Understanding the result, the methods, the efficiency of materials, and the usefulness of techniques is essential to enhance the training programme.

" Hence, it is essential to interpret the intermittent improvement, and other associated factors for training programme.

" It must noted that, interpretation during the training programme would help to bring changes in the training pragramme as per the requirement.

Level-III: Interpretation after the completion of training programme

After the completion of training programme, it is essential to review and understanding the various factors influenced the training programme. Interpretation of the overall result, specific result i.e. result in each skills, the methods used form training programme such as: a) play way method, b) structured method, c) project method and techniques used for training programme. It is essential to understand the whole scenario of the training programme. It also give idea for deciding the further training programme to be given to the student.

2.7.3 Report Writing

The dictionary meaning of 'report' is to give a spoken or written account of something providing official information or evidence (Oxford Dictionary, 2005). A report can be defined as a testimonial or account of some happening. Report is a

self-explanatory statement of facts relating to a specific subject and serves the purpose of providing information for decision making and follow up actions. It is a systematic presentation of ascertained facts about a specific event / subject. Report is a summary of findings and recommendations about a particular matter / problem. Report is for the guidance of higher authorities. Reports facilitate timely decisions and follow up measures. In today's world, reports playa crucial role.

2.7.3.1 Purpose of a report: writing to be read

A key thing to keep in mind right through your report writing process is that a report is written to be read, by someone else. This is the central goal of report-writing. A report which is written for the sake of being written has very little value. Before you start writing your report, you need to have in mind the intended audience. In the narrowest of possibilities, your report is meant for reading by yourselves, and by your advisor/instructor, and perhaps by your evaluation committee. This has value, but only short-term. The next broader possibility is that your report is readable by your peers or your juniors down the line. This has greater value since someone else can continue on your work and improve it, or learn from your work.

In the best case possibility, your report is of publishable quality. That is, readable and useful for the technical community in general. In special education, there are number of reports written for numerous purposes by varied professionals.

Writing report for administrative decision

- Diagnosis and certification
- IQ assessment
- Placement in appropriate schools
- Eligibility to various benefits and concessions offered by the government
- Access to suitable adaptive devices for independent mobility, communication and learning
- Establishing rights.

Writing reports for educational programming

This report is solely done by the teacher at the initial stage, formative stage and summative stage for promotion to next level or for future use. A report that is periodically written by all the teachers in regular or special school is the progress

report. For a student with special needs, make sure that your report is not only quantitative (percentage or other form of numerical values) but also qualitative, narrating the progress in each domain/subject as the case may be.

Writing reports for alternative placement

As notated by Raymonds (2008), the law demands that every child should have a careful assessment of strengths and needs with respect to participation in general education curriculum., goals and objectives set to enable the student to show progress in that curriculum and finally decisions on where the services are to be provided for maximum benefit to the student. These placement decisions are very carefully made by the team and reviewed periodically.

Writing reports for referral

A child may come to you referred by a professional or others or you may have to refer the child for further assessment or programmes. When cases are referred for certification or services, there should be a proper format and system so that the efforts are documented. This will also ensure receiving feedback from the referred agency. Referrals are made in the beginning at the time of initial team assessment, during the implementation of the educational programmes and lor on the completion of school admission. Proper reporting is required for referring the child to the others professional.

2.7.3.2 The essentials of good/effective report writing are as follows-

1. Know your objective, i.e., be focused.
2. Analyze the niche audience, i.e., make an analysis of the target audience, the purpose for which audience requires the report, kind of data audience is looking for in the report, the implications of report reading, etc.
3. Decide the length of report.
4. Disclose correct and true information in a report.
5. Discuss all sides of the problem reasonably and impartially. Include all relevant facts in a report.
6. Concentrate on the report structure and matter. Pre-decide the report writing style. Use vivid structure of sentences.

7. The report should be neatly presented and should be carefully documented.
8. Highlight and recap the main message in a report.
9. Encourage feedback on the report from the critics. The feedback, if negative, might be useful if properly supported with reasons by the critics. The report can be modified based on such feedback.
10. Use graphs, pie-charts, etc to show the numerical data records over years.
11. Decide on the margins on a report. Ideally, the top and the side margins should be the same (minimum 1 inch broad), but the lower/bottom margins can be one and a half times as broad as others.
12. Attempt to generate reader's interest by making appropriate paragraphs, giving bold headings for each paragraph, using bullets wherever required, etc.

2.7.4 Inclusive Education and Assessment

The Individuals with Disabilities Act Amendments of 1997 (IDEA 97) defines inclusion as the participation of children and youth with disabilities in the general education classroom and the general curriculum with appropriate aids and services.

Inclusion means full inclusion of children with diverse abilities (that is, both giftedness and disabilities) in all aspects of schooling that other children are able to access and enjoy. It involves 'regular' schools and classroom genuinely adapting adn changing to meet the needs of all children as well as celebrating and valuing differences (Loreman and Deppeler 2011).

The related concept of full inclusion refers to full membership in the general classroom with the full supports necessary to make inclusion successful (Sailor et al., 1993). The term full supports describes the importance of providing necessary support services in general education classrooms to ensure a quality educational programme.

Why do we modify assessment for students with disabilities in inclusive settings?

- Experts expect that inclusion will result in school classrooms composed of much more diverse groups of students (Putnam et al., 1995). As a result teachers need to develop new instructional methodologies and assessment procedures that respond to the greater diversity of student needs.

- Although assessment in inclusive settings requires changes, many current evaluation practices work equally well in inclusive and noninclusive educational settings. For ego Many curriculum based assessment procedures such as teacher made testing, grading of homework assignments, grading of classwork already occur in the same way in most classrooms. In fact, teachers should use established assessment procedures whenever possible as long as they meet the increasingly diverse needs of the students.

2.7.4.1 Assessment Issues in General Education

- When asked about inclusion, many general education teachers may feel that required modifications for students with special need lead to a watered-down curriculum.
- Special education teachers often express concerns about the emphasis in general education on testing as a means of accountability. This causes pressure on general educators to make sure that their students perform well on tests. Because students with special needs tend to perform poorly on tests, general educators may be hesitant to accept inclusion due to fears about a negative impact on the testing performance of the total class.

Educators who are teaching students with special needs in inclusive settings are still in the process of developing the best possible solutions to these issues and concerns.

2.7.4.2 New approaches to assessment in inclusive settings

(a) Team assessment:

One of the most useful assessment approaches in inclusive classroom is team assessment, which is a process that involves all teachers in the evaluation process, not just special education teachers in particular who concern about testing and grading students with disabilities are.

- Successful inclusion depends in part on the willingness of teachers to modify their measurement procedures are all different (Tiegerman-Farber & Radziewicz, 1998).
- If most of the teachers are willing to collaborate as coteachers in developing and implementing new assessment techniques that benefit all students while accommodating the needs of students with disabilities.

- One of the team assessment elements that teachers should consider is how well the members of the assessment team work together.
- Active participation of all team members in gathering and interpreting assessment data is a key element. All the team members should help interpret assessment data. The benefit of team assessment is more complete evaluation of student needs within the most appropriate educational environment.
- Team assessment requires a substantial amount of time, professional commitment and interpersonal communication (Coufal, 1993).

(b) Cooperative learning assessment

Cooperative learning is an instructional strategy that works well in inclusive settings. Research studies by Pomplan (1997) and Carlson et al. (1988) provide further evidence to support the use of cooperative learning in inclusive classrooms. These studies suggest that nonroutine, open ended tasks maximize the participation of students with disabilities in heterogeneous cooperative groups.

When teachers use cooperative learning, they are responsible for ensuring that appropriate assessment takes place. The steps in assessing cooperative learning are as follow:

- Specify the objectives
- Develop the assignment
- Determine grading criteria
- Explain the assignment and share the grading criteria with the students
- Monitor the efforts of the cooperative groups
- Interfere and provide support as necessary
- Evaluate the results

Teachers may use several assessment strategies to evaluate results, including the following:

- Observing group performance as it occurs
- Interviewing individual students and groups of students
- Evaluating individual and group performance on class work and homework.
- Grading teacher-made tests given to individuals or groups.

(c) Peer assessment of class presentation:

Any activity done by a student can be evaluated by peers as well as the teacher. One way to encourage group interdependence and to foster peer assessment is to structure classroom activities / presentations so that all members must learn the activity / material being presented.

- The rating system should include items for assessing the quality of the presentation, the interest generated by the presentation, the organization, creativity, originality and peer participation.

(d) Group assessment:

- In real life the success of an organization many a time depends upon the team performance rather than the success of an individual. For this reason, cooperative learning assignments in school should require group reports, exhibits, performances and presentations in which the students work together and are graded as a group.
- Group celebration should occur at the end cooperative learning lessons after completion of assessment and grading. Group celebrations give students the opportunity to salute their success and reflect on how well they collaborated to achieve their learning goals.
- Recognizing the learning efforts of group members and their contribution to the learning of others is an important element in rewarding group interdependence.

(e) Peer tutoring assessment:

- Peer tutoring is an instructional strategy in which a student tutor teaches another student in a tutor-tutee relationship designed to promote academic learning and social skill development.
- Successful peer tutoring involves planning, tutor training, teacher support and assessment. Some teachers assess the progress of tutees by having complete daily progress sheets.

(f) Play-Based assessment:

This method is highly recommended for assessing all the developmental areas and there is a highly likelihood that the child will demonstrate his/her true abilities in this setting. Play-Based assessment yield information to develop a plan for intervention to make the recommendations for goals or out-comes for the child and family and assessment team.

Psychologist Diane Ashton describes the following categories of play:

- Solitary play (all ages): The child plays alone. This type of play is not necessarily an indicator of immaturity. High-level play may occur.
- Onlooker play (all ages): The child watches other people play. This type of play appears to be a passive process whereby the child observes the play levels of other children. The examiner should use caution in interpreting this type of play.
- Parallel play (1-3 yrs.): Two children pursue similar activities but do not always engage in eye-contact or social behavior. Children play alongside each other.
- Associative play (2-3 yrs.): Children engage in same or similar activity and may exchange toys or make occasional comments to each other. This type of play lacks organization.
- Cooperative play (4-5 yrs.): This type of play is organized play with cues, rules and individual functions well defined.

There are specific play assessment instruments that might be used by the practitioner. Eg.- play observation scale (Rogers, 1986) which describes a 10-step hierarchy that focuses on language, cognitive and social aspects of play.

(g) Portfolios and assessment:

A student portfolio is a systematic collection of student work and related material that depicts a student's activities, accomplishments and achievements in one or more school subjects.

Performance assessment:

It is an ongoing process that captures the many activities and accomplishments associated with reflective teaching and learning that occur in portfolio-based instruction. By evaluating progress using a collection of authentic samples of student work, portfolio assessment provides an ongoing record of student performance and mastery of specific competencies (Vavrus, 1990).

Usefulness of portfolios for the students with special needs:

- Portfolios encourage individualization in response to the special learning needs of each student.

- Portfolio assessment enhances student motivation.
- It promotes mastery learning.
- It is an ideal way to evaluate the skills of students with special needs.

Process & Product portfolios:

- A process portfolio documents the stages of learning and provides a progressive record of student growth.
- A product portfolio demonstrates mastery of a learning task or a set of learning objectives and contains only the best work.

Advantages of portfolio assessment:

- Providing flexibility in measuring how students accomplish their learning goals.
- Enabling teachers and students to share the responsibility for setting learning goals and for evaluating progress toward meeting those goals.
- Providing a process for structuring learning in stages.
- Enabling measurement of multiple dimensions of student progress by including different types of data and materials.

Disadvantages of portfolio assessment:

- Requiring extra time to plan an assessment system and conduct the assessments.
- Gathering all of the necessary data and work samples can make portfolios bulky and difficult to manage.
- Scoring portfolios involves the extensive use of subjective evaluation procedures such as rating scales and professional judgments and this limits reliability.

(h) Performance assessment:

- Performance assessments provide greater realism of tasks in the following forms:

2. Solving realistic problems.
3. Oral or psychomotor skills without a product.
4. Writing or psychomotor skills with a product.

- Restricted performance tasks are highly structured and limited in scope. Extended erformance tasks are typically poorly structured and broad in scope.

Strengths

1. Provides a more natural, direct and complete evaluation of some types of reasoning, oral and physical skills.
2. Provides greater motivation for students by clarifying goals and making learning more meaningful.
3. Encourages the application of learning to "real life" situations.

Limitations

1. Requires considerable time and effort to use.
2. Evaluation must frequently be done individually, rather than in groups.

(i) Modifying Teacher-Made Tests:

Teacher made tests frequently fail to give students with behavior and learning disabilities the opportunity to demonstrate what they have learned. This occurs because students with disabilities may have deficit in attention, memory, organization, reading or writing that hinder performance on teacher-made tests. For these reasons teachers need to incorporate test design accommodations that minimize the effect of attention and memory problems. Test design accommodation includes the following:

Test Directions-

In some situations, students with special needs may receive poor marks on a test due to difficulty in following the test directions rather than lack of competency to perform the test content. Teachers can minimize this problem by using cues include color coding, using symbols etc.

Response Modes-

Teachers may need to modify the response modes of test items for students with written or verbal communication difficulties. For ego Students can record responses on an audiocassette or can give oral exam.

Test items-

Teachers can improve student performance by doing these things:

- Keeping the response choices as brief as possible.
- Avoiding potentially confusing choices such as all of the above or none of the above.
- Limiting the number of choices to no more than four items.

2.7.4.3 Some Adaptations during Assessment:

- Avoid long talks before tests.
- Provide an example of expected correct response.
- Seat students in a quiet place for testing
- Place a testing sign on the classroom door to discourage interruptions.
- Avoid threatening to use a test to punish students for poor behavior.
- Give a practice test.
- Give a retest if needed.
- Do not threaten dire consequences for failure.
- Grade on percentage of items completed.
- Have students regular test with the class and the adapted test in resource room or in a separate room.

2.8 "Check Your Progress"

1. What do you understand by assessment?

_____

_____

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2. What are the key components in the definition of assessment?

3. Explain the purposes of assessment.

4. How do you collect assessment data?

5. Testing is the part of assessment process? Explain.

6. Develop a observation checklist for assessing the classroom behavior of the children with mental retardation.

7. Explain the rational of CRTs and NRTs in special education.

8. Differentiate the CRTs and NRTs

9. Mention briefly the group of informal assessment measures in special education.

10. How can you develop a curriculum based assessment in inclusive setup?

11. Define Intelligence. Name two intelligence tests commonly used for children with mental retardation.

12. Make a list of various educational assessment tools.

13. Write the different pre natal and post natal medical screening procedures.

14. Write the rational of behavioral assessment

15. What is documentation? Discuss the importance of documentation.

16. How will you interpret at the initial assessment?

17. List out the principles of report writing.

18. Write some adaptations could be followed during the assessment in inclusive setup.

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2.9 Let us Sum up

- Each child with mental retardation is unique in nature. Special education can identify the unique need of each child through proper assessment and plan intervention activities as per the requirement. Assessment is a pivotal and the first step of rehabilitation programme for the children with Mental Retardation.
- Assessment is collection and organization of information for making administrative and instructional decisions.
- Assessment is carried out for various purposes such as (a) screening and identification, (b) determining and evaluation of teaching programmes and strategies, (c) determination of current level performance and educational needs, (d) classification and programme placement, (e) development oflEPs and (f) evaluation of the effectiveness of intervention programme.
- Assessment will utilize several methods ranging from observation to testing and experimentation. Observation is the most inexpensive method. Testing and clinical investigations are relatively costly and provide more objective information. Sometimes, external tools such as screening measures, schedules and scales are necessary to conduct assessment.
- There are different types of assessment. Based upon the manner of data collection it is formal and informal assessment and based upon the construction of test assessment could be Norm Referenced Assessment (Test) (NRT) and Criterion Referenced Assessment (Test) (CRT).
- NRT helps more in administrative decisions whereas the CRT helps more in instructional purpose.
- Most of the psychological test such as Developmental Test, Intelligence Test

and Aptitude Test are NRT in nature whereas most of the behavioural scale used in Special Education are CRT in nature.

- The different areas of assessment are clinical assessment, psychological assessment, educational assessment behavioural assessment and ecological assessment.
- Clinical assessment is a part of assessment in the process of diagnosis of persons with mental retardation. It is carried out to identify the cause of mental retardation, refer to further investigations to confirm the cause and other anomalies and to plan and evaluate treatment.
- Psychological assessment is the process of systematic collection, organization and interpretation of information about a persons and his situation. It encompasses assessment of the three major aspects of the mind namely, cognition, conation and affection.
- Intelligence is the aggregate or global capacity of an individual to act purposefully, to think rationally and to deal effectively with the environment. Intelligence tests, developmental schedules and adaptive behavioural scales are used in measuring the intelligence.
- Educational assessment helps to find out abilities of the student and plan teaching programme accordingly. Norm referenced tests and criterion referenced tests are used in educational assessment.
- Behavioural assessment is systematic repeated recording of predefined behavioural parameters of individuals, with a purpose of either identifying functional stimuli that maintain certain behaviours or demonstrating systematic behavioural changes as a function of planned intervention.
- Ecological Assessment stresses the importance of curricular items based on environment - instead of the" watered down curriculum". This approach emphasizes the inclusion of those content areas necessary for independent living in his/ her environment. It gives emphasize the assessment of environment of the CWSN rather than child with mental retardation.
- Documentation is a vital process in any programme. It makes the programme more system dependent than a person dependent. Educators employ various methods for documenting evaluation data. They are IEP form, activity checklists, task analysis checklist, graphs, work samples and anecdotal records.

- Interpretation is a process of perceiving the pros and cons of training programme. There are 3 levels of Interpretation
  - Level-I: Interpretation during the initial assessment
  - Level-II: Interpretation during the training programme
  - Level-III: Interpretation after the completion of training programme
- Reports are generated for various purposes. Some of the important purposes for which reports are generated include administrative decisions, educational programming, referrals and for alternative placement.
- Experts expect that inclusion will result in school classrooms composed of much more diverse groups of students (Putnam et al., 1995). As a result teachers need to develop new instructional methodologies and assessment procedures that respond to the greater diversity of student needs.

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Unit : 3 ❐ Assessment at Pre-school and School Level

Structure

3.1 Introduction :

Assessment methods and tools are very much essential for educational purpose. It may vary with age group because with the age the sensory motor coordination, social, perceptional emotional, communicational skills also varies which affect the learning outcome of a child.

3.2 Objectives :

After going through this unit the reader should be able to -

1. Understand the importance of assessment at preschool and school level.
2. Understand the developmental and adaptive behaviour assessment.
3. Explain and demonstrate tools at preschool level Upanayan, Aarambh Portage, MDPS. FACP and school level (MDPS, BASIC-MR, GLAD SIS).

4. Understand documentation of assessment result interpretation and report writing implication of class level assessment & its relation to inclusion with resource support.

3.3 Importance of assessment at preschool and school level

Preschool children

This group usually comprises of children from birth to six years. Though there are special programmes in India to target this group, currently there are no State policies or standard guidelines on assessment and intervention programmes. In this scenario, it is justified to look-up at the best practices available worldwide. The Individual with Disabilities Education Act (1997) of US require that every child identified to have disabilities at this stage will be assessed by a multidisciplinary team to establish relative strengths and needs in all the areas of development and identify appropriate services; secondly, a family directed assessment of resources, priorities, and concerns of the family and identification of resources and support system to meet them. Further the assessment should be able to predict the expected outcome for both the child and family, and precisely state what intervention programmes are required to achieve the outcome. In this context it is pertinent to note that preschool assessment should gather information on both the child and the family. Within the existing resources, early childhood assessment can be conducted if the teacher had the following competencies :

- Basic understanding of causes and prevention of disabilities in general and mental retardation in particular.
- Knowledge of human growth and development including the stages of development, facilitating factors,inhibiting factors, hazards of development, and intervention.
- Knowledge of existing developmental, (e.g. GDS, DST etc.), educational (e.g. Arambh) and other assessment tools (e.g. Portage, Upanayan) meant for this group.
- Knowledge of family functioning models and relevant assessment scales (Persha & Rao, 2003; Peshawaria et. at., 1995).
- Awareness about existing Policies, Provisions and Service Providers as applicable to the region to which the child belongs.

School level

This group comprises of children between 6 to 15 years. Hence assessment is required on the following :-

1. Intelligence assessment on standardized scales. This information will be helpful from the point of diagnosing mental retardation, estimating disability so that appropriate social benefits are extended to.
2. Adaptive behaviour assessment on norm-referenced scales (preferably, on VSMS) and / or criterion scales (e.g. MDPS).
3. A detailed educational assessment, preferably based on the functional approach (e.g. the functional assessment checklists for programming).
4. Assessment of problem behaviours, as indicated (e.g. BASIC-MR, BASAL-MR).
5. Depending on the need and educational setting, assessment can be conducted formally (e.g. grade level assessment tool by Narayan, 1994) or informally (e.g. teacher made curriculum-based tests).

At school level, particularly when it comes for placement in regular schools, the assessment should go beyond the individual with disabilities. It is also important to understand the environmental variables such as, attitudinal barriers, physical barriers, peer support, attitude and enthusiasm of the teachers and administrators.

3.4 Developmental and Adaptive Behaviour Assessment

From the information about the pattern of development of any individual, early identification can be possible. Sereening tools are also helpful to identify person with a specific condition within a large population. The screening procedure is less costly and less time consuming to determine the pattern of development in a child within his developmental stage or not. More over it is important to note that being positive on screening does not necessarily mean that the same result should come on assessment. Suppose developmental screening has indicated general developmental delay suggestive of mental retardation but the same result may not come up on IQ assessment.

There are several screening tools meant for identification of mental retardation, which are as follows :-

NIMH development screening schedule : This tool was developed by Saroj Arya (1991) to screen preschool children for disabilities in general and mental retardation in

particular. The schedule consists of ten key items on development that are passed by 90% of the children between the specified age group. The tool is established to have sound validity, reliability, and predictive power. The tool is meant for use in rural areas as as well as in urban setting.

NIMH screening schedules (National Institute for the Mentally Handicapped, 1989) : There are three schedules under this group meant for age group below 3 years, 3 to 6 years, and 7 years and above. The number of items / questions on which information has to be obtained varies from 8 to 13 per schedule. Administration of each schedule may not take more than five minutes. Though the psychometric properties particularly the predictive power of these schedules is not known, they are widely used in mass screening and the feedback is satisfactory.

Developmental screening test (DST) : This test was developed by Bharatraj (1977). This provides a measure of mental development based on social adaptive behavioural skills, communicative skills and motor skills from birth to 15 years. This can also be used with any age group of suspected cases of mental retardation. This tool shows good correlation with standardized IQ measures; therefore it is used whenever standard intelligence testing is not possible. Administration of this screening takes thorough training, and is primarily used by psychologists and developmental therapists.

Gessell's drawing test : Verma et al. (1972) adapted this test in Indian setting. This test consists of some simple geometrical shapes, which the student has to draw. This test is applicable from 1½ year to 8 years. Very recently some more items have been added which has enhanced its applicability up to the age of 12 years (Venkatesan, 2002). It takes about ten minutes to apply and interpret the test provided the child is cooperative

Developmental assessment tools

Other than the screening tools, early identification can be done by acquiring information about the development pattern of the individual. We know that development follows a specific pattern, which means that there is an expected age range for every developmental task. When we compare the individual's development with that of the expected norms, we can answer the following questions : whether development was normal, or any deviations were indicated; if the developmental deviation was specifically restricted to one area or generalized. This information can be attained by observation of the child, and also by interviewing the parents. Some of the important developmental milestones are shown in Table 1.

Table 1 : Normal Milestones of Development

S. No.	Developmental Milestone	Mean are by which it is attained
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.	Makes sounds “anna”, “da da da” etc.	7 months
6.	Sits without support	8 months
7.	Responds to name	10 months
8.	Stands by holding on to an object	10 months
9.	Holds object with thumb and index finger	10 months
10.	Stands without support	10 months
11.	Walks without support	15 months
12.	Tells own name	18 months
13.	Drinks by self from glass	21 months
14.	Shows body parts when named	24 months
15.	Speaks in small sentences	30 months
16.	Unbuttons clothes	36 months
17.	Differentiates big and small	36 months
18.	Can button clothes	40 months
19.	Combs hair	48 months

Source : National Institute for the Mentally Handicapped, Secunderabad.

A careful analysis of the developmental tasks will indicate that whether the child is having specific delay or a generalized delay suggestive of mental retardation. However, sometimes it may more areas of development it usually suggests mental retardation. However, sometimes it may not be possible to remember all necessary milestones hence we may miss some while observing of interviewing. Therefore, it is better to use developmental scales for they contain all necessary questions about development and also provide normative comparisons. Besides the developmental scales mentioned above, Developmental Assessment Scales for Indian Infants (DASII), an Indian adaptation of Bailey’s Infant Scales for Development by Pramila Pathak (1970; 2009), are also widely used for assessment and intervention.

Developmental assessment is mandatory in assessing mental status because it is one of the criteria of any diagnostic system. That is, it is essential for both intellectual and adaptive behavioural deficits should be during the the developmental period (i.e. before the age of 18 years). Further, intelligence testing cannot be done accurately at younger age groups (i.e. below age 3 years), and in very severely and profoundly retarted children. Sometimes, sensory-motor, communication deficits, lack of formal training and education etc. will also interfere with intelligence testing. Therefore, it is a common practice that wherever intelligence testing is not applicable or feasible, developmental assessment is done to estimate developmental quotients did interpreted the same way as intelligence quotient (IQ) to ascertain the severity of mental retardation. Another reason why developmental assessment is preferred that developmental tasks are not influenced by formal education or lack of it unlike the tasks given under intelligence testing. Lastly need for developmental assessment is also indicated by the fact that internationally the construct of mental retardation is changing to reflect it also as a developmental and intellectual disability. However, it must be noted that developmental assessment is not a substitute to intelligence testing, as both depend on entirely different assumptions.

Assessment of adaptive behaviours :-

Adaptive behaviour is defined as the effectiveness or degree with which the individual meets the standards of personal independence and social responsibility expected of his age and cultural group (Grossman, 1983, P-159). This expectation differ from age to age.

According to the American Association on Mental Retardation (AAMR) the deficits in adaptive behaviour during the childhood years may reflect deficit in academic learning, judgement and reasoning in dealing with the environment and social skills in group activities and interpersonal relationship. So it can be considered as a feature of mental retardation.

Classification of persons with mental retardation based on the support system required with reference to the adaptive behaviour deficits is an emerging trend globally. Therefore, assessment of social and adaptive behaviour is an important aspect in assessment of mental retardation. Similarly, behavioural problems and communication deficits are common to mental retardation. Therefore, assessment of all these aspects is important for a comprehensive plan.

AAIDD recognizes adaptive behaviour as a collection of three skill areas explained below, and a significantly sub average functioning in the following three areas is necessary identify mental retardation (Luckasson et. al. 2002) :

- Conceptual skills - language and literacy; money, time and number concepts; and self-direction.
- Social skills - interpersonal skills, social responsibility social problem solving and the ability to obey laws and to avoid being victimized.
- Practical skills - activities of daily living (personal care), occupational skills, healthcare, travel/transportation schedules/routines safety, use of money, use of the telephone.

Assessment of adaptive behavior to determine the support system is not common in India, where IQ levels are transformed into disability percentages. But now globally the trend is to define support system based on the extent of deficits in adaptive behaviors. Then the question comes what are supports? Supports are resources and strategies necessary to promote the development, education, interests, and personal well being of a person with intellectual disability. Supports can be provided by a parent, friend, teacher, psychologist, doctor, or by any appropriate person or agency. The AAIDD views that providing individualized supports can improve personal functioning, promote self-determination, and enhance the well being of a person with intellectual disability. Supports also lead to community inclusion abilities. Focusing on supports as the way to improve education, employment, recreation, and living environments is an important part of a person-centered approach to provide care to people with intellectual disability. To extend the support system, an individual's need for supports be analyzed in at least nine key areas, which are human development, teaching and education, home living, community living, employment, health and safety behavior, social behavior and protection and advocacy. Between intelligence problems and adaptive behaviour deficits, credit is given to the latter in conceptualizing mental retardation as it directly reflects quality of independent living.

To Give the importance of adaptive behaviour as a diagnostic criterion and its role in independent living, assessment is done to obtain two questions : 1) whether the adaptive behaviour is significantly below average? 2). If yes, what are the relative strengths and deficits of the individual? Answer to the first question comes from norm-referenced assessment, while criterion - references and behavioural tools are for the other. Answer to the second question emphasizes the fact that measurement of adaptive behaviour is a nonbiased assessment of culturally different students, as it recognizes cultural and ecological influences on daily living activities. Some of the commonly used scales are listed in Table 2.

Table 2 : The adaptive behaviour scales used in India

S. No.	Name of the Scale	Approach	Age Group	Remarks
1.	Vineland Social Maturity Scale (VSMS; Malin, 1968; Bharatarj, 1992)	Normative	Applicable for 0-15 years; But is used with any age group of suspected cases of mental retardation	Yields social quotient (SQ) Provide a profile of adaptive behariour domains. Indicates just the target areas
2.	Madras Developmental Programming System (Jeyachandran & Vimala, 1975)	Criterion	Not defined from age the point of view of age but appears to be applicable for age 3 years & above, as the items reflect content from preprimary level and upwards.	One of the first tests of its kind in India. Useful for individualized programme plan

Adaptive behaviour scales / Tools for assessment of adaptive behaviour

The adaptive behavior, which projects our behavior in the personal and social areas, reflects our ability to respond to the environment. Thus adaptive behaviors come under the broad domains of functional independent skills, personal and social responsibility, and independent living skills. These elements combine to form an organized behavioral pattern of the individual. Some of the popular adaptive behavior scales used for assessing the mentally retarded persons are :-

The Adaptive Behaviour Scales (ABS) : The scale was developed in 1969 by Nihira et. al. to be used for client assessment and individual program planning and assessing the total programming needs of groups of clients for research purposes. It can be used to make assessment of mentally retarded, emotionally maladjusted and developmentally disabled persons of all ages from childhood for adulthood. It is divided into two parts : Part-I, is concerned with matters described as adaptive behaviour and comprises ten domains with a total of 66 items. The domains are independent functioning, physical development, number and time, domestic activity, vocational activity, self direction, responsibility, and socialization, Part-II of the scale is concerned with what are called maladaptive behaviours. These are grouped into 14 domains. They include violent and destructive behaviour, untrustworthy behaviour, withdrawal, stereotyped behaviour, inappropriate interpersonal manners, unacceptable vocal habits, unacceptable

habits, self abusive behaviour, hyperactive tendencies, sexually aberrant behaviour, psychological disturbances and use of medication. . The ABS is designed for use by someone who knows the individual being assessed. Thus it can, for example, be completed by a case worker or teacher. The assessor records responses to the item on the questionnaire, and no special training is necessary to complete it.

The Vineland Social Maturity Scale (VSMS) : This was developed by Edgar A. Doll in 1935, and has been revised several times since its first publication. It was intended to be used for program evaluation and research. The scale was designed to assess the social competence of individuals of ages from birth to 25 years and above. The Indian adaptation of VSMS, by Fr. A. J. Malin, has an age range of birth to 15 years. There are eight domains with 89 items, grouped age wise self-help general; self help eating, self help dressing, self direction, occupation, communication, locomotion, and socialization. The information is collected by a trained examiner from an informant who is familiar with the client. Scoring of the items gives the information on social age from which the social quotient could be calculated.

3.5 Assessment Tools at preschool level :

The age of three to four years is the time when the child attends a preschool, thus, a mentally retarded child with higher chronological years may educationally fall in the preschool years (3-4 years). The child is showing skills exhibited by a pre schooler and, therefore, needs educational instruction appropriate for a pre schooler.

There are several assessment tools available at pre school level.

a) Upanayan

Upanayan is a systematic, structured, early-intervention programme for the training of children with developmental delays and / or mental retardation. It was developed at Madhuram Narayanan Centre for Exceptional Children, Chennai. The programme was developed and designed to suit the Indian socio-economic conditions and cultural milieu. The programme has been developed considering diverse needs of children with any developmental delay besides mental retardation. This approach provides early intervention irrespective of the diagnostic labeling. Upanayan programme are designed for two groups of children : (1) birth to two-years; (2) two-years to six-years. Upanayan enables the family members particularly the mother to be the trainer or educator of the child. Another unique feature of this programme is that it combines traditional wisdom of child-care from India and other parts of the world with intervention.

Programme for babies from birth to two-years of age comprises five developmental

areas; motor, self-help, language, cognition, and socialization. Under each of the above areas, 50 discrete behavioral skills have been identified as the optimal ones to cover the daily activities of a child of this age group. The activities have been planned to train children in the various skills in the household setting of an average Indian home. Programme for children from two to six years includes advanced skills set under each of the 12 areas, which are as follows : gross motor, fine motor, mealtime activities, dressing, grooming, toileting, receptive language, expressive language, socialization, reading, writing and number work. As part of the Upanayan Programme the centre has also developed a computer-aided programme of development training for children with mental retardation (0 to 2 years) in making friends, reaching out teaching how to clap, learning to blow, learning to balance and standing on one's own legs.

b) Aarambh

Current research on education of persons with mental retardation indicates that children with mental retardation can be part of the inclusive education system provided curriculum adaptation, evaluation methods are compatible to the individual needs. Even when the resources are available, children with special needs do not adjust to the inclusive setting they are not prepared for it. By the time it is realized valuable time, which was important for preparing base for future learning, is lost. Research directed towards early detection and intervention confirms that early-learning is very influential on later-learning. Precisely in this backdrop, "Arambh", a package for inclusive education at preschool level was developed at The National Institute of Mentally Handicapped (NIMH) (Rao & Narayan, 2002) with funding support from UNICEF. It provides a customized curriculum, instruction for adaptation in teaching method each content and disability at preschool level. This package is meant to provide early childhood special educational inputs between 3 to 6 years i.e. before entering into the school system. The package consists of the following :-

1. Curriculum calendar
2. Teacher manual
3. Policy maker booklet
4. Activity cards

The curriculum calendar specifies what objectives of learning to be involved in its monthly activities. Teacher manual helps the teacher to make programme plan in regular school so that the existing infrastructure and resources are well utilized.

An information booklet for the policymakers is added to draw a roadmap for making the inclusive model of covering the children with special needs. There are 225 activity cards to cover the knowledge required daily; and information for a child to interact with parents, family members and the community. The cards indicate the process of various activities through conversation, games, songs, story-telling, creativity and finally prepare the child for skill demonstration. Field studies indicate that this scale is being widely used in early childhood special education in India.

c) Portage Guide

David EL Shearer found the Portage Project in 1969 to provide services to young children identified with disabilities within a rural community (Shearer and Shan; 1972). By early 70's the project offered home-based services that supported parents as their children's first, most valuable an influential teacher. This family-guided model supports parents and family in implementing an individualized educational plan and through basic routines and activities that the parent and child engage in on a daily basis. Specific play-based activities offered and utilized to meet child's goals and to improve parent-child interactions. Developmental assessment tools are also used for targeting skills, behaviors and progress. The outcomes ultimately helped children to prepare for school and overall success. The ultimate goal of this project is to create and enhance quality programme which promote the development of education of all children with disabilities and their families through a home or relationship-based early intervention programme. This project is guided by the following four core values :-

1) Strengh-Based : a focus on the strengths of children, families, and programms.
2) Ecological : consideration of the larger environment in which children, families and programs exist.
3) Family Focused : families and programs are the decision makers.
4) Relationship Based : most effective work is through relationships based upon trust that supports each individual and forms the basis of the program implementation (CESA 5, 2003).

This project has been adapted widely across the developing countries including India. Commonly known as Portage, "The Portage Basic Training Course for Early Stimulation of Preschool Children in India" was adapted in India by Tehal Kohli in 1987. This adaptation is an outcome of UNICEF supported pioneering project of its kind titled, "impact of home-centre based training programmes to

reduce developmental deficits of disadvantaged young children under ICDS scheme in Chandigarh". Portage as a tool provides age norm references besides giving the flexibility to choose programme as per the child's condition. Components of the Portage Material are as followed :-

1) Portage Checklist by Bluma et al (1976) lists sequential behaviours from birth to six years of life. The Indian version, adapted by Kohli, contains 575 checklist items encompassing infant stimulation, socialization, language, self-help cognitive and motor domains.

2) Curriculum cards to observe each of the behaviours on the checklist. Each card includes a behavioural description of skill and suggests material and curriculum ideas for teaching it.

3) Activity charts.

4) Reactions of mothers towards portage training : It notes the mothers' satisfaction level with the programme.

d) Madras Developmental Programming Systems (MDPS)

This scale earlier know as "Madras Scale" was developed by Jeyachandran and Vimala (1968). It underwent three editions including a revision before it acquired its present form and the name, "Madras Developmental Programming Systems" (MDPS) in 1975. The scale was revised five more times till 1992. The scale is first of its kind in India in individualized programme planning in training persons with mental retardation. It consists of 18 domains with each containing 20 times. The 18 domains encompass the following broad areas :-

Motor	:	(Gross Motor, fine motor)
Self-helf skills	:	(Eating, dressing, grooming, toileting)
Communication skills	:	(Receptive language, expressive language)
Social interactions		
Functional academic skills	:	(Reading, writing, arithmetic, time, money)
Domestic behavior		
Community orientation		
Recreation and leisure time activities		
Vocational activities		

Each item is scored with alphabetic code ('A' means performs; 'B' means yet to perform), and a colour code ('Blue' means performs; 'Red' means yet to perform). Specific patterns are also used to indicate if a skill, which was not performed at baseline, is achieved after training. The patterns vary depending on which quarter the assessment was done. Being a criterion-referenced scale it provides scope for periodic assessments and evaluation. Items from each domain are also identified to represent different educational levels including preprimary, primary, secondary and prevocational. Some salient features of the scale are as following :-

- Item selection is based on developmental stages and life situations.
- All the 360 items are positive statements which are observable and measurable.
- All the items have functional relevance.
- The items proceed from simple to complex.
- The scale has sound psychometric properties such as reliability, validity and practicality.

e) Functional assessment checklist for programming (FACP)

Latest among the approaches to curriculum development, the functional approach emphasizes that educational goals should be functional, age appropriate and community - referenced. Need for his approach arises in the context that curricular content, at times, does not provide a meaningful link between learning situation and practical situation. Functional curriculum ensures that the activity taught is directly applicable in real situation. Suppose a teacher may decide to teach spellings only for those words that require reading and writing in general correspondence. Accordingly, the teacher shall teach the spellings for name of the student, grocery items, sign boards than typically beginning with alphabet. Similarly, training for holding food is done with real food than holding beads and blocks. Thus, a functional programming aims at leading the student towards reduced dependence on others and provide maximum personal, social and occupational competency. The following checklists, based on functional curriculum, are extensively used in India in both individualized training and group teaching :-

Functional Assessment Checklists for Programming (Narayan et. al., 1994)

This checklist is developed by the Department of Special Education, NIMH. There are separate checklists for different age groups - Preprimary (3-6 years), Primary-I (7-10 years), Primary-II (9-14 years), Secondary (11-14 years). Prevocational-I and Prevocational-II (both 15-18 years), and Care Group (those who are profoundly retarded). The items vary from one checklist to another. The domains covered are, personal, social,

academics, occupation and recreational. The checklist provides the guidelines as how to promote children from one class to another. If the curriculum is mastered the individual will have necessary competency to undergo vocational training and function independently in adult life.

3.6 Assessment Tools at school age :

The years between five to ten are the years of primary schooling. During this period, significant changes in the sphere of physical, intellectual, emotional and social aspects takes place. Language, communication, reasoning thinking, problem solving capacities develops rapidly.

The various assessment tools at this age are :-

i) **MDPS - Mentioned earlier**

ii) **BASIC MR - The Behavioural Assessment Scales for Indian Children with Mental Retardation (BASIC-MR)** are used for assessing the current level of bahaviour and for programme planning with children between 3-18 years of age. BASIC-MR comprises two parts - Part A and B. Part A has 280 items which provide information regarding the current level of skill behaviours in seven functional areas - motor skills, activities of daily living, language, reading-writing, number-time, domestic-social and prevocational-money. With respect to each item, one has to see whether or not the child can do the task as specified in the item independently; if not, what sort of help he needs. Depending upon the child's performance, the child is given a score as described below :-

Each child with retardation may show different levels of performance on the items of the BASIC-MR, PART A. The six possible levels of performance under which each item can be scored are as follows. The record booklet is used to enter the scores obtained by the child on each item.

Level One : Independent (Score 5) - If the child performs the listed behaviour without any kind of physical or verbal help, it is marked as 'independent' and given a score of 5.

Level Two : Clueing (Score 4) - If the child performs the listed behaviour only with some kind of verbal hints, it is marked as 'clueing' and given a score of 4.

Level Three : Verbal Prompting (Score 3) - If the child perform the listed behaviour with some kind of accompanying verbal statements, it is marked as 'verbal prompting' and given a score of 3.

Level Four : Physical Prompting (Score 2) - If the child performs the listed behaviour only with any kind of accompanying physical or manual help, it is marked as 'physical prompting' and given a score of 2.

Level Five : Totally dependent (Score 1) - If the child does not perform the listed behaviour at present, although he can be trained to do so; it is marked as 'totally dependent' and given a score of 1.

Level Six : Not applicable (Score 0) - Some children may not be able to perform the listed behaviour at all, owing to sensory or physical handicaps. Wherever an item is marked "not applicable", it gets a score of 0.

Part B has 75 items which provide information regarding the current level of problem behaviour in the child. With respect to each behaviour, it is noted whether the child never shows the behaviour (0), shows it occasionally (1) or frequently (2).

Table 3 : Showing domains of BASIC-MR

	BASIC-MR
Part A : Skill bahaviour domains	1. Motor 2. Activities of daily living 3. Language 4. Reading-writing 5. Number-time 6. Domestic-social 7. Prevocational-money 8. Social-communication
Part B : Problem	1. Violent and destructive behaviours 2. Temper tantrums 3. Misbehaves with others 4. Self-injurious behaviours 5. Repetitive behaviours 6. Odd bahaviours 7. Hyperactivity 8. Rebellious behaviours 9. Antisocial behaviours 10. Fears

iii) **GLAD - Grade level assessment device for children with learning problems in schools** (Narayan, 1994) : This tool was the first of its kind in India, which was developed in the backdrop that there were no wholesome scales to assess the learning problems. Even those existing did not meet the variation across State and Central schools syllabi. Some of the main objectives with which this tool was developed are as following :-

- Development of a schedule for assessing children to find out their class equivalence in academic performance in India.
- Developing a manual for use by the teacher.

The tool has two formats : Format-I and Format-II. Format-I contains test booklets of class I to IV given in the form of worksheets. Each class contains worksheets in Hindi, English and Mathematics. Item include tasks requiring verbal and written responses to questions. Analysis of students performance gives clue to the teacher regarding the student's style of learning and problem solving. The salient feature of this scale is that the test items are based on minimum levels of learning (MLL) prescribed by the National Council on Educational Research and Training (NCERT). Further, items have the uniform endorsement of syllabi of various Central Boards and a State Board where MLL was taken the standard. But wherever MLL were not prescribed as in the case of LKG and UKG, item endorsed by different boards, and published books were considered in the same order. Thus this tool satisfies the assessment needs of children coming from different school syllabi across India. Since the test items reflect the standard curricula, it is also an example for curriculum based assessment tool. The tool has established criterion validity, content validity face validity, test-retest reliability.

Format-II is meant for teacher's observation regarding the student's performance on Format-I and certain personal details of the student. It contains three sections. Section-I deals with personal details, family history, school history etc. Section-2 requires the teacher to note information on sensory-motor skills, which will be useful for medical referral. Section-3 indicates the possible errors for each subject so that when they are noted the teacher can undentand the processing deficits involved in specific subject.

Finally the summary sheet provides for a brief overall picture of the child, which includes matrix that shows the child's class of functioning in terms of independent, functional and frustration levels. Coding facilities are provided so that the class levels in which the student is tested can be noted in terms of his or her performance. The salient features are as follows :-

- Overall information can be used to identify learning problems with reference to curriculum.
- It is possible to ascertain the grade levels in Hindi, English and Mathematics.
- Information obtained can be used in diagnosis and management of specific learning disabilities in primary class levels.
- It is reliable, valid, and easy to administer and interpret.
- Has relevance to all parts of India, as it is based on MLL, and also the Central and a State Board Syllabi.

iv) **Support Intensity Scale :-**

It is a unique scientific assessment tool designed to measure the level of practical support required by the people with mental retardation in order to lead a normal, independent life in society.

The scale has two components :-

- A manual explains how to administer the instrument.
- A set of pre printed forms rate the respondent on the intensity of supports required in medical, behavioural and life activity areas.

The support means resources and strategies - including individuals, money or tangible assets, assistive devices, of environments that enable people with developmental disabilities live normal lives in regular community settings.

The Supports Intensity Scale measures supports required by an individual in75 life activities in the areas of home living; community living; life-long learning; employment, health and safety; social interaction; and protection and advocacy.

The Supports Intensity Scale also measures 15 exceptional medical needs and 13 behavioural support needs of the individual being tested. The rationale here is that certain medical conditions and challenging behariours predict that a person will require increased levels of support, regardless of his or her relative intensity of support needs in other life areas.

The Supports Intensity Scale is conducted as a semi-structured interview by a qualified interviewer with preferably two or more respondents that know the individual well. The interviewer should be a professional who has completed at least three months and have had recent opportunities to observe the person function in one or more environments for substantial periods of time.

The Supports Intensity Scale has been normed on a sample of 1306 people between the ages of 16 and 70+ identified with mental retardation or other developmental disabilities. The SIS sample was drawn from 33 states and 2 Canadian provinces and the data was collected between spring 1999 and fall of 2002.

Benefits of SIS Scale :-

- Provides direct, reliable, and valid measurement of supports requirements in 57 life activities.
- Ranks results by frequency, daily support time, and types of support needed.
- Evaluates impact of 15 medical and 17 behavioural conditions on overall support needs.
- Presents percentile ranking of persons needs based on national field test data.
- Provides graphic plot of information recorded, including visual display of areas of high intensity vs. low intensity of supports needs.
- Supplements adaptive behavior measures by revealing exactly what practical supports are required to perform a task (Adaptive measures identify the skills of an individual has to do a task).

The authors of the Supports Intensity Scale are :-

James R. Thompson, Brian Bryant, Edward M. Camplell, Ellis M. (Pat) Craig, Caroyln Hughes.

3.7 Documentation of Assessment, Result Interpretation and Report writting :

Implication of class level assessment and its relation to inclusion with resources support.

Different assessments can be used for further recommendation and further action. There are various assessment result which alone or combinations of different result is needed for decision making.

The comprehensive report leads to evaluative purpose.

- Writting report for administrative decisions alike.
  - Diagnosis and certification.
  - IQ assessment.

- Placement in appropriate school.
- Eligibility to various benefits and concessions.
- Establishing rights.
- Access to suitable adaptive devices for independent mobility, communication and learning.

➢ Writing reports for educational programming.

The teacher must remember following points for writting educational programming :-

- Objectivity
- Use
- Clearity
- Authencity
- Unbaised
- Uptodate
- Simplicity
- Precise
- Provision of support documents where applicable.

➢ **Writting report for referral :-**

- Referral at the time of initial assessment
- Referral during the educational programme
- Referral for admission to regular / special school
- Referral on completion of school educational.

Interpretation of educational assessment has two major purposes :-

- Placement decision
- Programme planning

Placement decision :-

Due to intellectual impairments coping in regular classes is difficult. In the light of inclusive education, placement of the child should be with the childs pear and be based on chronological age.

According to Salvia and Ysseldyke (2007), general educators believe that children with developmental delay needs more support or special assistance to achieve desired outcome with the help of class level assessment or grade level assessment, - the teacher has to take into account the consistency of responses over a period of time and select the right recommendations for referral and amount and nature of support needed.

Programme Planning :-

The assessment by the teacher is continuous and it reflects current level of functioning at a given time and progress as a result of instruction.

Recently the model of class level assessment or curriculum based assessment for monitoring progress is response to instruction (Horner, Sugai and Horner 2000). It basically focuses on effective instruction. In inclusive settings, it helps the teacher to decide, how much the student benefits from core instruction (which is provided to all students), how much enhanced instruction is needed in addition to the core instruction and in what near intensive instruction is to be planned.

The assessment data which will include - preliminary assessment, specific assessment to plan annual god, individualized educational programme (IEP), date of behaviour analysis, record of parent teacher meetings, visits to inclusive classes as a resource teacher, team meeting with principal, detail information of the students profile like learning style, rate of learning, interests, needs, supportive classmates or teachers give a clear picture of the student in the class.

So, to achieve the goal of education, perfect recording of assessment, supporting parents, cooperation of teachers, proper referral, modified instructions, innovative teaching strategies, alternative evaluation system can be used as a support system for the child in inclusive set up.

3.8 ''Check Your Progress''

(i) What are the importance of assessment at preschool and school level?

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(ii) Why developmental assessment is necessary in mental retardation?

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(iii) What is adaptive behavior? Reason out the importance of assessment of adaptive behariour in the field of mental retardation?

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(iv) Describe two important assessment tools in preschool level.

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(v) Describe one curriculum based assessment tool used in school level assessment. Define its importance in inclusive educational set up.

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3.9 Let Us Sum Up

The needs of individual vary with the age thus different methods of assessment are needed. During preschool age the basic skills such as cognitive, motor, sensory perceptual skills develop at rapid speed. So, the pre-requisites for most of the adaptive behaviours and conceptual skills are still in progress. The assessment tools should be like that to evaluate these pre-requisites of a child.

The assessment of school level is to impart for diagnosis and placement in proper educational set up. So the tools at this level are to assess the overall academic and adaptive skills which are necessary for independent living.

Developmental assessment is an important aspect of early identification of mental retardation. Assessment of adaptive behavior is needed to define effectiveness of the person to meets the standards of personal independence and social responsibility expected according to the age and culture.

Assessment tools used in preschool level are Upanayan, Arambh, Portage, MDPS, FACP and assessment tools in school level is MDPS, BASIC-MR, GLAD and Support Intensity Scale.

Documentation of assessment is important for evaluative purpose, educational programming purpose and referral purpose. The educational assessment has two major purpose – placement decision and programme planning.

So, for overall development of a child depends upon had perfectly the date of assessment is used through analysis and what types of modification is needed for his educational upliftment in inclusive educational system.

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Unit - 4 ❐ Assessment at Adult and Vocational levels

Structure

4.1 Introduction

Assessment in special education is the most crucial step towards planning the programme for a person with intellectual disability (PwlD). Assessment aims at assessing the potentiality of an individual with intellectual disability and helps at preparing him/ her towards independent living following the result of assessment. The information gained through the assessment process have to be utilized meaningfully for the programme planning for independent living of PwIDs. Education is a mean to independent living and economic independence to everyone including persons with disabilities. To achieve this, vocational training and placement is imperative.

The persons with intellectual disability have also the right to get meaningful employment for their livelihood. Special Educators asses and plan a training programme which focus on transition from school to work. Transition from school to work means scientifically plan transfer of a student from school to world of work with requisite

skills. Comprehensive transition from school to work planning and implementation require participation from all relevant school, parents and the children with intellectual disability Very often, comprehensive transition planning requires restructuring and rethinking of professional roles. Refining professional roles is not enough, participation of the family members of the persons with intellectual disability and the community must also be encouraged.

Service delivery of persons with intellectual disability is typically initiated by a referral, subsequently screening tests are conducted and a rigorous assessment process follows using standardized tools, which are appropriate to the culture and society. National and International tools are used to assess different domains of adaptive behavior and independent living of people with intellectual disabilities.

Rehabilitation has gained the due importance on the agenda of the Central Government. The Government has planned and implemented a lot of schemes, programmes and projects which are supported by an 'infrastructural network' of the Disability Division in the MoSJE. MOSJE assure several provisions and schemes for vocational competency development of these people on behalf of government.

Finally a comprehensive report is necessary to mobilize the community.Collecting information through assessment report is necessary to make the community more accessible in resource mobilization.

4.2 Objectives

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

- Demonstrate knowledge and information about the significance of assessment for PWID's independent functioning including it's aim, principles, approaches and future perspective.
- Demonstrate knowledge and information regarding the importance and stages of transition from school to work along with the assessment procedure.
- Use Indian assessment tools for independent living like BASAL-MR and VAPS.
- Enlist the various provisions and schemes of MOSJE for vocational rehabilitation.
- Discuss and implement the documentation of assessment and by enlisting the component write report on assessment, also use the outcomes for community living.

4.3 Significance of Assessment for Independent living of PwlDs.

Assessment: Concept

Assessment is a process of collecting data for the purpose of making decisions about learners.

Assessment information is used to make decisions about what learner have learned, what and where they should be taught, and the kind of services they need.

Assessment is an integral part of the learning process, required in order to:

- Judge performance, measured against intended learning outcomes.
- Determine whether progression to the next level is appropriate.
- Provide useful feedback, which indicates attainment and also areas for improvement.
- Identify what has not been understood, thus helping to inform evaluation of teaching methods and approaches.

An assessment in special education is the process used to determine a child's specific learningstrengths and needs, and to determine whether or not a child is eligible for special educationservices. Assessment in special education is a process that involves collecting information about astudent for the purpose of making decisions. Assessment, also known as evaluation, can be seen asa problem-solving process (Swanson & Watson, 1989) that involves many ways of collectinginformation about the student.

According to Gearheart and Geatherat (1990' cited in Pierangelo and Giuliani, 2006), assessment is "a process that involves the systematic collection and interpretation of a wide variety of information on which to base instructional/intervention decisions and, when appropriate, classification and placement decisions. Assessment is primarily a problem-solving process." Considering independence, independent living, rehabilitation as our primary goals; assessment of adaptive behavior/functional abilities becomes very important as this is the first step in the process of planning a programme for a person with special needs.

The importance of assessment should never be underestimated. In special education, you will work with many professionals from different fields. You are part of a team, often referred to as a multidisciplinary team that tries to determine what, if any, disability is present in a student. The team's role is crucial because it helps determine the extent and direction of a person's personal journey through the special education experience.

Consequently, the skills you must possess in order to offer a person the most global, accurate, and practical assessment. The development of these skills should include a good working knowledge of the following components of the assessment process in order to determine the presence of a suspected disability.

- Collection : Process of tracing and gathering information from many sources of background information on a person.
- Analysis : Processing and understanding of patterns in person's educational, social, developmental, environmental, medical, and emotional history.
- Evaluation : Evaluation of person's academic, intellectual, psychological, emotional, perceptual, language, cognitive, and medical development in order to determine areas of strength and weakness.
- Determination : Determination of the presence of suspected disability and the knowledge of the criteria that constitute each category.
- Recommendation : Recommendations concerning educational placement and program that needs to be made to the school, teachers and parents.

Functional Abilities and Its Assessment

Comprehensive assessment of functional ability is the basis for developing a rehabilitation programme. Functional ability measures a person's ability to perform ADL's as well as instrumental activities of daily living. ADL's include activities performed to meet basic needs, such as personal hygiene, dressing, and toileting, eating and moving. ADL's also include activities that are necessary for independent living, such as the ability to shop for and prepare meals, use the telephone, clean, manage finances and travel, as one grows older.

The significance of assessment is much more than merely testing an individual. It involves gathering information in many ways like testing the individual directly, observing him/her in various environments and interviewing family members and others significant in his/her life. Informations collected through these means are analyzed to make decisions related to the purpose for which the assessment is carried out.

Vocational Assessment has very important role to guide the PWIDS in rehabilitation process which is the ultimate goal. A PwlD becomes independent only through proper rehabilitation.

Through vocational assessment the special educator finds out the skills, performance and interest of the persons with Intellectual Disability which helps in planning and executing the planned vocational training programme in individual and group setup.

Vocational assessment can be broadly defined as the "Process of obtaining information about worker's skills and performance in order to make appropriate training decisions" (Bellamy, Horner and Inamn, 1979).

Vocational assessment is a comprehensive process that systematically utilizes work in real or simulated as the focal point for assessment and vocational exploration, the purpose of which is to assist individuals in vocational development. It also incorporates medical, psychological, social, educational, vocational, cultural and economic data in selecting goals for vocational training and rehabilitation.

To enhance the independent living of PwlDS the mode of assessment should be functional in nature. Purposes of functional vocational assessment for persons with intellectual disability are :

- Provides information on work readiness skills.
- Helps to identify suitable jobs in the community.
- Provides information on jobs selected.
- Identifies areas in which training is needed.
- Emphasizes on-the-job training.
- Evaluates work related skills and work behavior.
- Targets employment for all trainees who are assessed.
- Extends support for job retention

Aim of Vocational Assessment

The main aim of vocational assessment is to help in assessing the individual's skills and capacities and in pin-pointing the strengths and weaknesses for eventual vocational programming. Vocational assessment needs to address four major issues namely:

a) Eligibility for services.

b) Vocational potential - which involves assessment of intellectual ability, academic achievement, aptitudes and interests.

c) Social adaptation and level of psychological and emotional functioning, and

d) Evidence of problems that require treatment.

Principles of Vocational Assessment

Some of the important principles of vocational assessment are as follows:

- The vocational assessment must be ecological.
- Vocational assessment must be carried out in settings where in individuals' response can be evaluated in relation to naturally occurring environmental cues in a situation.
- The assessment instruments should have predictive validity for determining the individual's ability.
- Vocational assessment must include both quantitative and qualitative components.
- Vocational assessment should focus on work related skills and behavior that could impede the employment opportunities.
- Vocational assessment must proceed from global to specific measures as the individuals prepare for gainful employment.

Initially, a baseline assessment should be done using criterion referenced norms to obtain information about the individual's vocational potentialities. Then, formative assessment should focus on information related to vocational training Programme. The final stage encompasses on-the-job evaluation.

Relevance of Vocational Assessment

Education is a means to independent living and economic independence to everyone including persons with disabilities. To achieve this, vocational training and placement is imperative. When a student is around 15 years of age, preparation for suitable vocation should be the focus of curriculum planning so that when he is 18 years, he will be ready for a vocation. The various assessment relevant to vocational training and placement include.

- Adaptive behavior
- Ability and current level of functioning
- Aptitude
- Occupational
- Transition

- Ecological
- Life skills
- Family resources and concerns

Choice of vocation is dependent on abilities, interests and aptitude. Psychologists play a major role in finding out aptitude of the persons with intellectual disability. There are also tools for occupational assessment and life skill assessment and life skill assessment. As school curriculum focuses on academic and functional skills, transition assessment to vocational training is also a development in recent years. Transition assessment focuses on adaptive behavior, life skill measures, knowledge and skill related competencies. (Cronin & Patton, 2007). What is important is how the rest results are interpreted. For a person with intellectual disability, one should consider, job skills, job related skills and generic skills. For example, job skill may be the direct job to be performed, say 'life operator' in a public building. This will include operating of the lift as required by the users and managing/reporting problems if and when it occurs, maintaining long book and relevant register and so on. The job related skill may be to be on time, related social skills of routine pleasantries and courtesy with people who use the lift, maintaining will groomed, acceptable appearance, and so on. The generic skills refer to prerequisites such as time, travel and money management skills. The assessment report should generate this information systematically so as to appraise the abilities of the candidate in reference and plan a programme to groom him suitably. The vocational assessment profile will include the aptitude of the candidate and will list more than one job skill that he may be suitable for. It is imperative that the vocational assessment report holds information on the health issues if any, about the candidate, benefits and concessions that he is receiving and details regarding registration in employment exchange/special employment exchange.

Interpreting the vocational assessment should be with the vocational options in perspective. The avenues may be open employment, sheltered employment or supported self employment, depending on the ability of the student, family resources and plans for the trainee and the ecological details. The vocational training may be through regular vocational education programmes such as the industrial training institutes (ITI), vocational rehabilitation centers (VRCs) or special institutes meant for persons with mental retardation, both, Government and non-government, community based rehabilitation (CBR) programmes is another major avenue for vocational training. Therefore the teacher has to carefully interpret the assessment information by assembling all pertinent information to fit the person in the correct vocational setting for training.

As rightly noted by Polloway, Patton and Serna (2007), students must be provided with opportunity to become aware of and explore various occupational options that are potentially available to them. This is possible only by wish interpretation of the assessment reports by the teachers.

Approaches of Vocational Assessment

Since vocational assessment greatly influences vocational training and rehabilitation, professionals have become increasingly concerned about the use of appropriate assessment strategies.

Broadly there are two types of assessment approaches; namely: the traditional and contemporary assessment approaches.

Traditional assessment approach measures abilities and prior learning assuming that already learned traits can predict subsequent learning and performance. Traditionally, vocational assessment relied upon standardized techniques, like, intelligence test, measures of aptitudes, interests and norm-referenced instruments to obtain profiles of vocational potential.

Contemporary Approach to Vocational Assessment

Contemporary approach include three newly developed areas to vocational assessment of intellectually disabled persons. These are assessment of adaptive behavior, survival skills and process assessment approach.

Adaptive behavior refers to a wide range of appropriate behaviours in diverse social contexts.

The survival skills refer to those vocational and socialbehaviours which facilitate to obtain and maintain employment.

Process approach emphasizes the importance of direct assessment of actual competencies in contrast to product approach of relying on measures to infer performance.

Future Perspective

The successful placement of IntellectuailyDisabled individuals into an integrated work setting depends upon a multitude of inter-related personal and situational variables and hence it is imperative to assess a wide range of personal skills and vocational attributes.

Professionals are faced with the task of devising vocational assessment package

that adopts the best of both traditional and contemporary approaches. The package should provide information that is maximally useful for :

a) Identification of target population.

b) Programme planning for vocational training.

c) Placement and gainful employment.

d) Monitoring worker progress.

e) Programme evaluation.

The vocational assessment package should be simple and time and cost effective.

Some of the important areas which can be used as framework for vocational assessment of intellectually handicapped persons include general mental ability, skill levels, language and communication, adaptive behavior, daily living skills, social competence, level of independence and level of integration. These parameters can be measured by use of relevant assessment techniques which would serve the purpose of vocational planning, monitoring progress and evaluating programme effectiveness, information about occupational interests and aptitudes will be useful in matching a person with job that is not only feasible but is also of interest to the employee. In this way vocational assessment can be sensitive to the interaction between skill level and job requisites, thus providing more relevant information for vocational training and vocational rehabilitation.

Improving quality of life for handicapped individuals should be overriding concern all of human service programmes and measures of life-style satisfaction should be the prime yardstick to evaluate success in vocational rehabilitation.

4.4 Assessment for Transition from School to Work

Transition from school to work

Transition from school to work means scientifically plan transfer of a student from school to world of work with requisite skills. Comprehensive transition from school to work planning and implementation require participation from all relevant school, parents and the children with intellectual disability Very often, comprehensive transition planning requires restructuring and rethinking of professional roles. Refining professional roles is not enough, participation of the family members of the persons with intellectual

disability and the community must also be encouraged.

Transition for any children with Intellectual disability involves several key components such as:

- An appropriate school programme.
- Formalized plans involving parents and the entire array of community that are responsible for providing services and.
- Multiple, quality options for meaningful post-school training and gainful employment.

  Transition plans may begin with a parent, school or an agency responsible for providing post school vocational services.

There are several models of transition from school to work. They are :

- Office of Special Education and Rehabilitation Services (OSERS) model of transition.
- Wehman, Kregal and Barcus - 1985 Transition model.
- Pathways model of transition.
- Halpern's revised transition model (1985).
- NIMH Vocational Transition model for persons with Mental Retardation (Intellectual Disability)

The most practiced transition model in Indian context is NIMH Vocational Transition model for persons with Mental Retardation (Intellectual Disability), developed by National Institute for the Mentally Handicapped, Secundrabad.

This model states that transition plan is very important stage and role of special educator is also essential in planning and exhibiting the proper transition programme for the overall development of the persons with intellectual disability.

The flow chart of NIMH Transition Model has focused on four stages of vocational transition and employment of persons with intellectual disability. The stages are :

- School Instruction Stage
- Planning for Transition
- Placement in Employment
- Ongoing Support Services

School Instruction Stage

Systematic school instruction is the foundation of vocational training and related employment. The children with Intellectual Disability are being taught daily living skills through functional curriculum from pre-primary to pre-vocational levels. The functional curriculum equips the children with intellectual disabilitywith related/required work readiness skills.

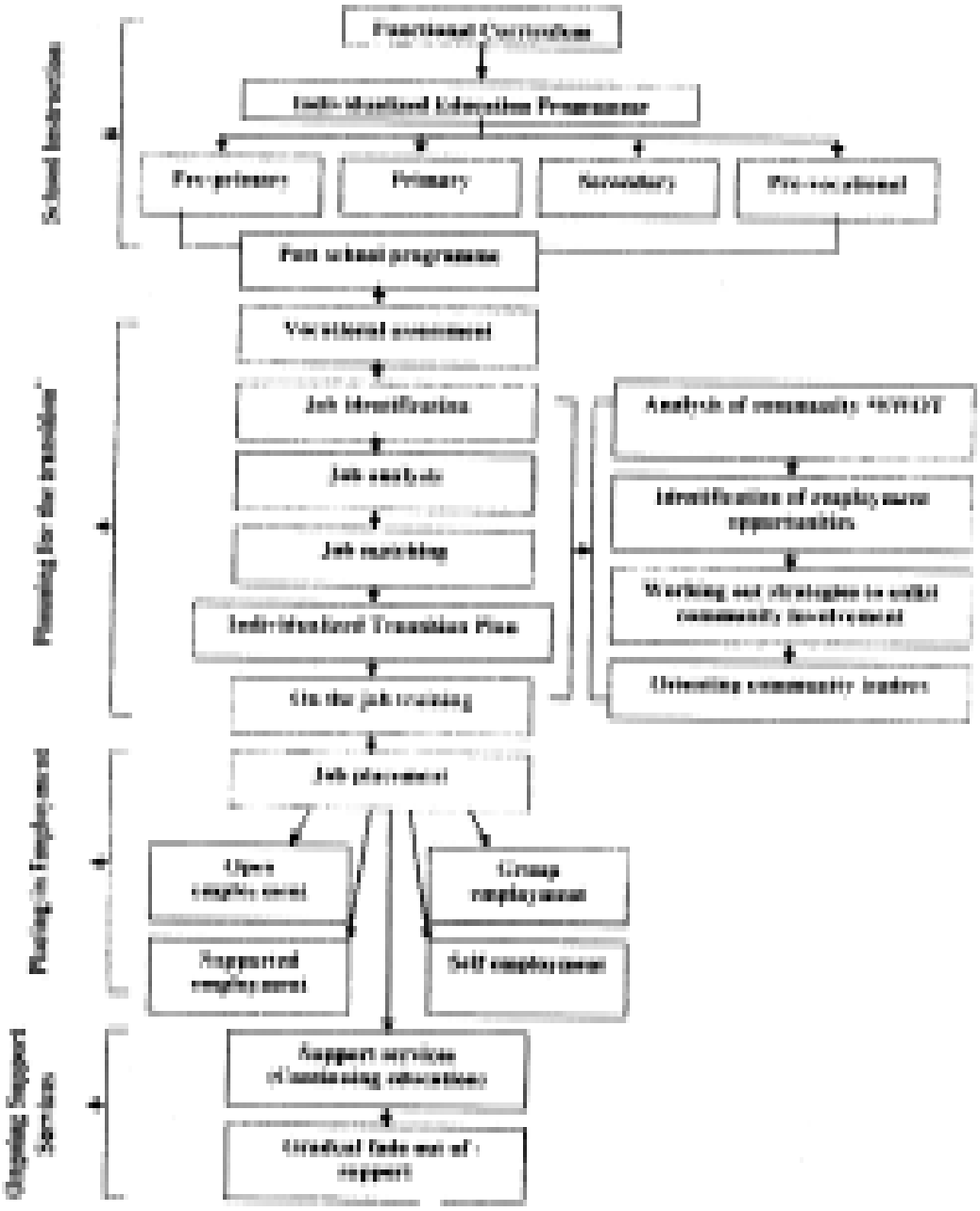
The main objectives of school based curriculum are :

- It develops work habits, positive attitudes, value toward work and daily living skills.
- It provides instructions and guidance for establishing and maintaining relationship at home, school and at work.
- It develops the work related skills among the persons with Intellectual disability to be placed in the community.
- The students with intellectual disabilitycomplete their education through functional curriculum from pre-primary to pre-vocational with the age range from 3 years to less than 18 years. After completion of stipulated training in particular class/group, decision will be taken for promotion (After achieving more than 80% task prescribed in the particular group the student could be promoted to the higher class).

Planning for Transition - This stage consists the community assessment, vocational assessment and individualized transition plan.

Community assessment consists of : (i) Analysis of community (SWOT analysis i.e. Strength, Weakness, opportunity and threat analysis), (ii) Identification of employment opportunities, (iii) Working out strategies to enlist jobs in community, and (iv) Job identification within their own community (if possible).

NIMH VOCATIONAL TRANSITION MODEL FOR PERSONS WITH MENTAL RETARDATION



Vocational assessment involves : (i) Family assessment of persons with mental retardation, (ii) Generic skill assessment, (iii) Specific skill assessment of the persons withintellectual disability.

Individualized transition plan focus mainly on : (i) Job analysis, (ii) Job matching, and (iii) On job training of the persons withintellectual disability.

Placement in Employment

The students with intellectual disability are prepared for a job right from the beginning of their schooling. As they reach the final stage, the search for the real job starts. The training continues in simulated job setting and job sites. By the end of the training, as they leave school, the students with intellectual disability are placed in actual sites. It can be in one of the following types of employment such as open employment, supported employment, sheltered/group employment and self/home based employment.

Ongoing Support Services

The role of special educator does not get over once the persons with intellectual disability placed in the actual job site. Even the role gets more important as the persons with intellectual disability who has been placed on real job setup where he/she has to face the new challenges such as expectations of the employer, getting involved with the co-workers etc. Hence, ongoing support services is very essential for the new employees to continue on-the-job are given importance in this model.the special educator should observe the persons with intellectual disability on the real job sites and provide additional support as and when it is required to cope up with the new situation. The special educator should also provide necessary skill training to succeed in the carrier through proper counseling to special employee, employer and the co-worker. Gradually reduce the level of support to make the persons with intellectual disability/special employee independent at their work setup/job site, which will enhance the quality of life of the persons with intellectual disability and become an earning member of the family and society.

Planning for Vocational Transition : the Process

This is the important phase of a transition model. Transition programme would have no meaning without specific planning.

➢ Formal individualized student plans

It is essential to develop a formal, individualized transition plan for every student with intellectual disability. Formal plan should specify the objectives to be acquired. The plan should include annual goals and short term objectives that reflect skills required to function on the job, at home and in the community. Transition plan should be comprehensive in scope. In addition to specific job skill training, students must also be prepared to use community services effectively, manage money, and travel to and from work place independently. Plans must take care of all these skill areas to meet the comprehensive needs of the students and at the same time should be individualized. Each individual requires a different set of post-school services.

Transition plans must also be longitudinal in nature. Participation of all individuals and agencies involved in the transition process during the initial development and the plan is required till the final placement. The plan initially should be for a longer period and should then be modified once in a year.

➢ Consumer input

Wherever appropriate, the person with ID should be consulted for his views and options as he is the consumer of the plan proposed. When the person with intellectual disability is not capable of making decision, the parent or primary caregiver becomes the consumer to represent the student concerned, Therefore, parental involvement in vocational transitional plans is important. They should be made aware of the employment alternatives available to their children. They must acquire knowledge and skills required to participate effectively in transitional planning. Systematically planned parent education programs will improve the effectiveness and duration of parent involvement.

Parent education meeting should be conducted by the school personnel for the purpose of enhancing parental involvement. The meeting should.

- Orient the parents to the community agencies providing post-school services to handicapped youth.
- Familiarize parents with specific responsibilities of special education, vocational education and vocational rehabilitation in the vocational transition process.
- Prepare parents to work with various agencies to develop transition plans and to apply for future services.

➢ **Inter-agency co-operation**

It refers to coordinated efforts across different agencies like schools, rehabilitation services and vocational training centers so as to ensure the delivery of appropriate, non-duplicated services to each student (Morton et al. 1983) However, it is a difficult attempt. Since agencies differ widely in their opinion, services continue to be duplicated. Solutions to these problems are yet to come up.

➢ **Employment outcome**

Employment outcome is the outgrowth of appropriate secondary special educational programme and a meaningful transition plan. As a result of the implementation of individualize transition plan the trainee should be in a position to work in open employment, supported employment, sheltered employment or self-employment setup. It is essential that communities should provide different vocational alternatives, in order to make transition programme a success.

➢ **Necessity of follow-up services**

Though outcome stage is the final stage in the transition model, the responsibility of the special educator does not end with this. In order to monitor the transition effectively, it is the essential to follow-up the individuals-who are placed on jobs in regular interval. It is also essential to ensure job retention by the person concerned. Here, we have to collect information about the student's perception of his/her present job status, parents' satisfaction and the employer's evaluation of his/her work performance. The follow up services in addition to helping the students in retaining the job will help the professional in gathering information about the effectiveness of the transition programme.

4.5 Assessment Tools for Independent Living - BASAL - MR, V APS

Assessment Tools and methods vary depending on the purpose for which assessment is to be carried out and the type of the data that has to be gathered. Service delivery for the persons with intellectual disability is typically initiated by the referral, subsequently screening tests are conducted and a rigorous assessment process follows using standardized tools, which are appropriate to the culture and the society. Each tool has

its strengths and benefits, and potential utility depending upon the assessment criteria and subject eligibility. Assessment in special education is the most crucial step towards planning and programme for adult. Tools to assess different domains of adaptive behavior are widely used across all countries including India.

BASAL-MR - Behavioural Assessment Scale for Adult Living-Mental Retardation.(ReetaPeshawaria, D.K. Menon, Don Bailey et al., 2000) This scale has been developed at National Institute for the Mentally handicapped Secunderabad. This tool is developed for assessing the adaptive and maladaptive behavior of the adult persons with Intellectual Disability (Mental Retardation) above 18 years old.

BASAL-MR gives a profile of skill behaviours and problem behaviours, while the problem behavior checklist is meant to measure only the problem behaviours of the adult person withlntellectual Disability. The tool is a standardized assessment tool and used widely in country. The underlying assumptions of BASAL-MR are the same, they recognize that certain skill behaviours and problem behaviours are unique to specific groups.

BASAL-MR contains the following domains/areas :

Part : A

- Personal care
- Food management
- Household tasks & responsibility
- Community & Leisure
- Sexuality
- Work
- Functional literacy
- Social-communication

Part - B

- Physical harm towards others
- Damages property

- Misbehaves with others
- Temper tantrums
- Self-injurious behaviours
- Repetitive behaviours
- Odd behaviours
- Inappropriate social behaviours
- Inappropriate sexual behaviours
- Rebellious behaviours
- Hyperactivity
- Fear

Administration of BASAL-MR (Pat A)

The following points need to be followed while administering the Scale :

1. Read each item within every domain in the scale to assess whether the given adult with Intellectual Disability can or cannot perform that item.
2. As far as possible, use direct observational techniques rather than interview techniques to determine actual performance of the adult, i.e. how will the adult can or cannot perform the said item.
3. It is essential that the user should complete the behavioural assessment of the adult using the scale within a single session. Two or more sessions may be required to assess the adult on certain items on the scale.
4. The user needs to administer all the items within a given domain for each and every adult being assessed on the BASAL-MR.
5. The items within each domain of the BASAL-MR (Part A) have been classified as far as possible on increasing level of difficulty. However, the user is advised to administer all the items on the scale. The present scale doesn't only focus on normal ways to perform an activity but also effective ways to accomplish the task.
6. Use the scale for each adult. Enter the performance of the adult and the score obtained on the scale for all the four occasions.

7. The user must refer to the glossary where ever the item in the scale is marked with an asterisk (*). This will help clarify issues related to the administration of certain items. As the user gains experience in the use of the items the need for referring to the glossary will decrease.
8. The user must refer to the material in Chapter VI, where ever the item in the scale is marked with an (#) and use the material while administering BASAL-MR (Part A).

Scoring of BASAL-MR (PART-A)

Each adult with Intellectual Disability may show different levels of performance on every item on the BASAL-MR (Part A), the six possible levels of performance under which each item can be scored are as follows:

Scoring: Adult Performance

Each adult with Intellectual Disability may show different levels of performance on every item on the BASAL-MR (Part A). The six possible levels of performance under which each item can be scored are as follows : Use appropriate boxes in the scale to enter the scores obtained by the adult on each item.

Level Two : Independent (Score 5)

If the adult performs the listed behavior without any kind of physical or verbal assistance or clueing/ modelling. It is marked as independent and given a score of 5, Level Two :

Clueing/ modelling (Score 4)

If the adult performs the listed behavior only with some kind of verbal hints (example, up, down, right, left, etc,) or gestural clues (example, pointing with fingers, shaking forefinger to hint "no" or having to show him how to do and then only he does, etc.), it is marked as "clueing/modelling" and given a score of 4. To continue the previous example, even after the trainer's verbal instruction to "undress" if the adult is unable to perform, and requires additional verbal clues such as (pull, open, bend etc) in order to perform the activity, then the adult's performance is at the level of clueing.

Level Three : Verbal prompting (Score 3)

If the adult performs the listed behavior only with some kind of accompanying verbal statements (example, "keep holding paper with left hand as you cut", "Now cut in into small pieces'" etc.) it is marked as verbal prompting and given a score of 3.

Level Four: Physical Prompting (Score 2)

If the adult performs the listed behavior only with any kind of accompanying physical or manual help (example, requires physical help in untying shoe lace, removing shoes from feet, etc.) it is marked as physical prompting and given a score of 2.

Level Five : Totally dependent (Score 1)

If the "adult does not perform the listed behavior currently although he can be trained to do so (example, others have to place order in the restaurant and the adult makes no attempt to place order in the restaurant on his own), it is marked as totally dependent and given a score of 1.

Level Six : Not Applicable (Score 0)

If an adult is not able to perform the listed activity due to physical or sensory handicaps. For example an adult mentally retarded individual with visual impairment will not be able to read train timings or play computer games. Similarly the item "Plays basketball" may not be applicable to an adult mentally retarded individual with cerebral palsy were his upper limbs are grossly affected it is marked as not applicable and given score of 0.

Table : Scoring of the Items

Responses	Scoreing
Not Applicable	0
Totally Dependent	1
Physical Prompting	2
Verbal Prompting	3
Clueing/Modeling	4
independent	5

Administration of BASAL-MR (Part B)

The BASAL-MR (Part B) is to be administered individually on each person withlntellectual Disability. The trainers/user should go through the entire scale and familiarizes with the meaning of each item before beginning to administer the scale. The following points need to be considered while administering the scale ;

1. Administer BASAL-MR (Part B) as also the (Part A) on the adult withlntellectual Disability. Do not presume or assume whether a particular person has or does not have behavior problems.
2. Read each item within every domain in the scale and assess whether the given person with Intellectual Disability has or does not have, the stated problem behavior.
3. As far as possible, use direct observation techniques rather than interview techniques to determine if the client has or does not have the stated problem behavior.
4. It is not essential to complete the behavioural assessment of the person using BASAL-MR (Part B) within a single session. Depending on the nature of problem behaviours observed or reported, adults may have to be assessed over few sessions of observation. In some cases, where direct observation of problem behaviors is not possible, information can be elicited using interview method and supplemented from key informants such as parents/caretakers.
5. Enter the performance of the individuals and the score obtained as you administer the scale for all four occasions that you assess and evaluate the client during the year.

Scoring of BASAL MR (Part B)

The following is the criteria of scoring which need to be used for BASAL-MR (Part B)

1. For the given person with Intellectual Disability, check each item of the scale and rate them along a three point rating scale, viz. never, occasionally or frequently.

a) If the stated problem behaviour has "never" been observed or reported in the person, then give a score of 0.

b) If the stated problem behavior occurs sometimes, that is, once in a while or now and then, it is rated "Occasionally" and given a score of 1.

c) If the stated problem behavior occurs quite often or, habitually it is rated as "frequently" and given a score of 2.

Thus, for each item on the BASAL-MR (Part B) an adult with Intellectual Disability may get any score ranging from 0 to 2 depending on the frequency of that problem behavior. Enter the appropriate score obtained by the person for each item in the appropriate boxes.

2. The maximum possible score for a person on BASAL-MR (Part B) is 240.
3. Add the individual scores of the person on each item within a domain and express it as 'obtained score' for that domain. Convert it into percentage for each domain.
4. Calculate the total 'obtained score' for all the twelve domains and express it as Grand Total 'obtained score' for BASAL-MR (Part B). A lower score indicates fewer/less behavior problems.
5. Convert the total obtained score into percentages by dividing the total obtained score with the maximum possible score i.e. 240 and multiply by 100.
6. Administer the BASAL-MR (Part B) according to the above procedure on four occasions each time along with BASAL-MR (Part A).

a) The first or initial assessment of the person is done before starting the teaching or training/management programme. This is called as baseline assessment.

b) Repeat the next three assessments at the end of every three months i.e. one quarter or after a predetermined interval as per policy.

7. Enter the obtained scores, percentages, grand total scores and percentages attained by the person at the end of each assessment of evaluation in the appropriate boxes.

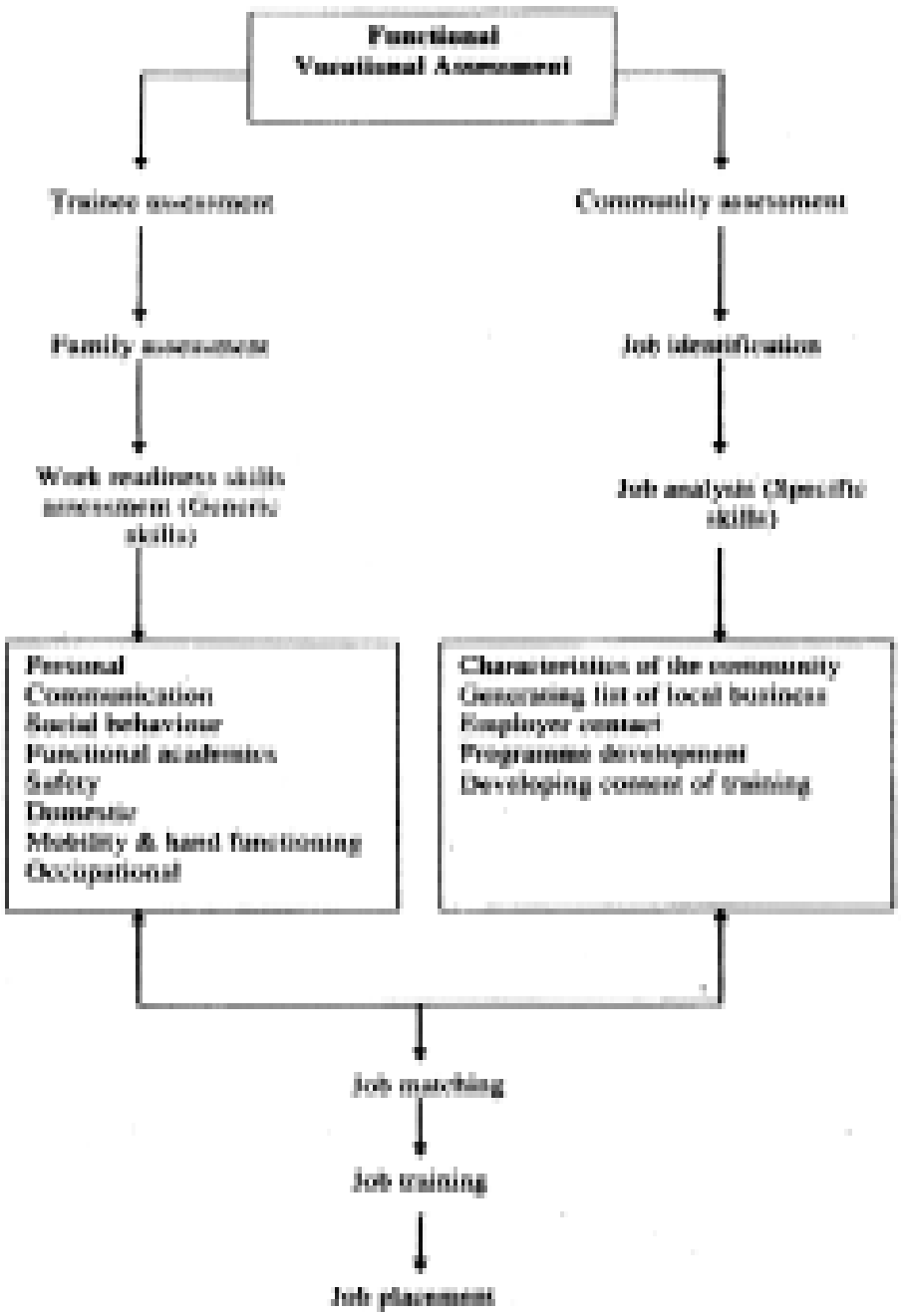
NIMH - VAPS (NIMH Vocational Assessment and programming system for persons with Mental Retardation) -

In Indian content the first assessment tool for vocational assessment was developed by the National Institute for the Mentally Handicapped, Secundrabad. The name of the scale is "NIMH Vocational Assessment and programming system for persons with Mental Retardation.

This vocational assessment tool was developed by A.T. Thressia Kutty in 1991. By using this toolconducting the vocational assessment is simple, easy and cost effective. Here assessment of the persons with Intellectual Disability is conducted in systematic manner.

NIMH VOCATIONAL ASSESSMENT AND PROGRAMMING SYSTEM (VAPS)

FUNCTIONAL VOCATIONAL ASSESSMENT MODEL



There are two aspects in trainee's skids assessment in the functional vocational assessment:

- Generic assessment.
- Specific skills assessment.

Generic skills are the pre-requisite skills/work readiness skills for a specific job selection and training. Generic skills include personal, social, academics, domestic, safety, hand functioning and mobility skills. NIMH has developed an 80-item generic skills checklist to assess the pre-requisite skills. Based on the job selected, a criterion-referenced checklist can be developed for assessing the pre-requisite skills for specific job training.

Specific skills are the information gathered from the community assessment, interviews,the job analysis. The skills identified as required for success on community jobs should be the same skills on which trainees are assessed. Both work skills and work related skills should be considered in relationship to actual jobs available in the community. When trainees reach 18 years of age, vocational trainers should consider specific placements.

NIMH Vocational Assessment and Programming System (VAPS) has the following parts:

- Vocational Profile
- Generic Skills assessment Check list
- Job Analysis Format
- Work Behaviour Assessment Check List
- Vocational profile consists of trainees identification data, family history, socio-economic status, readiness skills assessment, associated condition, training received, daily routines, employment experiences (if any), possibilities of employment, required area of guidance and selection of suitable job.
- Generic Skills assessment Check list contains 80 items under 8 domains. The domains are personal, communication, social behavior, functional academics, safety skills, domestic behavior, mobility and hand functioning and occupational skills. Tick *('')* means the trainee is able to perform the activity independently without any help or support whereas cross (X) means the student with Intellectual Disability is not able to perform the activity or required kind of support such as physical prompt, verbal prompt and gestural prompt.

- Job analysis format consists title of job, Job site, job trainee, job programmer along with main working areas, additional duties, and work-related activities. The work related activities include personal, functional academics, sex education, recreation and independent living. The independent living include the following areas- safety, travel, family and community living,
- Work behaviour assessment checklist consists physical appearance, personal interaction, regularity and punctuality, communication and social manners, quality and quantity aspects of work. In this assessment checklist 3 for always, 2 for often, 1 for rare and 0 for never is the norm of scoring.

Vocational assessment should be conducted considering the students background by using VAPS in simulated environment (parents also should be included and involved during the assessment) in the generic skill area.Special educator then conduct the work behavior assessment of the trainee. After conducting detail vocational assessment, the special educator/vocational instructor will get assets and needs of the persons withlntellectual Disability. Considering the assets of the persons with Intellectual Disability and job identification through job survey, an individualized vocational training programme should be planned and implemented first in the simulated environment followed by the actual job site. During the training, evaluation should be conducted to find out the learning outcomes of the student withintellectual disability. At the initial level the special educator should provide the different level of support as and when required fay the persons withintellectual disability. Gradually the level of support should be reduced to make the persons with intellectual disability independent in the particular task.

4.6 Provisions & Schemes of MoSJE for Vocational Skill Development

India is a welfare state that is specially committed to the welfare and development of its citizens in general and of the disadvantaged in particular. It is the Ministry of Social Justice and Empowerment (MoSJE) which is responsible for all round development of persons with disabilities. As the name suggests the MoSJE is to ensure equitable treatment to such sections of the society who have faced and suffered injustice, social inequalities, discrimination and exploitation.

Approach to Rehabilitation:

Rehabilitation has gained the due importance on the agenda of the Central Government.

The Government has planned and implemented a lot of schemes, programmes and projects which are supported by an 'infrastructural network' of the Disability Division in the MoSJE.

i. National Action Plan - A National Action Plan for Skilling the Persons with Disabilities has been prepared by the Department of Persons with Disabilities (DEPwD) with the following main components:-

- A Project Monitoring Unit (PMU) to be set up in the Department of Empowerment of Persons with Disabilities. The PMU would have the following components :
- Training need assessment unit
- Content Generation unit
- Training Monitoring and Certification unit
- Employer Connect unit
- IT Unit to provide support for creation of E-learning modules, monitoring of training, E-certification and training centres / creation and maintenance of ajob portal.
- The vocational / skill training would be provided by a network of skill training providers led by NGOs, private training institutions and Public Sector/Govt. Sector training institutions like VRCs. The vocational training would be provided by *a* cluster of training providers scattered over the country, having an established track record of providing skill training with high employability ratio. These training partners would be provided outcome based financial support by Deptt. Of Empowerment of Persons with Disabilities (DEPwD) and Ministry of Skill Development & Entrepreneurship (MSDE). Synergistic support would be provided to these training providers by the National Institutes of DEPwD, training institutions of Ministry of Human Resource Development, Ministry of Micro, Small & Medium Enterprises, other Central Ministries and State Governments.
- A separate cross cutting Sector Skill Council for PwDs is being created in collaboration with Ministry of Skill Development & Entrepreneurship and the private sector. Rehabilitation Council of India (RCI), in consultation with the Sector skill council and various National Institutes of the DEPwD would help generate a homogenous course curriculum and certification mechanism for the training providers.
- DEPwD would help these training providers by connecting them with various private

sector organizations and PSUs for providing employment connect as well as for obtaining CSR support.

- DEPwD will coordinate with State Governments to support proactively by offering infrastructure and resource support to these clusters of Vocational Training Providers.

Targets of the National Action Plan:

- The DEPwD, in collaboration with NSDC, has set a target of skilling 5 lakh persons with disability in next 3 years (1 lakh in first year, 1.5 lakh in second year and 2.5 lakh in third year). After achieving the target for three years, we would have achieved a momentum and would have created a robust online-skill training platform enabling us to skill 5 lakh PwDs every year, thus skilling 2 Million more PwDs during 2018-2022. Thus, till the year 2022, the National Action Plan will lead to skilling of 2.5 Million PwDs (with 70% target employment). This would be a major contribution to "Skill India" initiative of Hon'ble Prime Minister.
- The skill training will be provided by a network of more than 200 clusters of Training Partners', thus setting a target of skilling about 500 PwDs in the first year for each of the cluster. The lead NGO may empower and take the help of small NGOs in the rural areas for the skill training but every such training centre will be monitored by the PMU. The network of training providers and capacity thereof will keep increasing every year.

Objective & Coverage of the scheme

1) The Scheme aims at providing financial assistance for skill training for persons with disabilities.

2) The scheme will cover Persons with Disabilities (PwDs) with not less than 40% disabilityand having a disability certificate to this effect issued by a competent medical authority.

3) 30% reservation for women candidates: As an endeavour to encourage women, 30%of the total intake of each training program shall be earmarked for women candidates.

4) The scheme will operate through training institutions recognised by this Department asper the eligibility conditions contained in this scheme.

Title of the Scheme and Date of Commencement The title of the scheme is "Financial Assistance for Skill Training of Persons withDisabilities". The scheme is effective

from the date of notification of the scheme or from l[st] May, 2015 whichever is later.

Conditions of Eligibility

a. Eligibility of the Trainees

(a) A citizen of India

(b) A person with disability with not less than 40% disability and having a disability certificate to this effect issued by any competent medical authority.

ii) The National Skill Development Corporation India, (NSDC) is a one of its kind, Public Private Partnership in India. It aims to promote skill development by catalyzing creation of large, quality, for-profit vocational institutions.

NSDC provides funding to build scalable, for-profit vocational training initiatives. Its mandate is also to enable support systems such as quality assurance, information systems and train the trainer academies either directly or through partnerships. NSDC acts as a catalyst in skill development by providing funding to enterprises, companies and organisations that provide skill training. It will also develop appropriate models to enhance, support and coordinate private sector initiatives. The differentiated focus for the 21 sectors under NSDC's purview and its understanding of their viability will make every sector attractive to private investment.

iii) The National Handicapped Finance and Development Corporation (NHFOC) was set up by the Ministry of Social Justice & Empowerment, Government of India on 24[th] January 1997 as a company not for profit under section 8 of Companies Act 2013 with the objective of serving as a catalyst in the economic development of PwDs. NHFDC functions as an apex financial institution of the country and provides financial assistance, in the form of concessional loans, to Persons with Disabilities for self-employment ventures, higher education and other activities. The fund is channelized through the State Channelizing Agencies (SCAsJ nominated by the respective State/ UT Government(s) Also, the concessional loan of NHFDC is made available through some Public Sector Banks (Punjab National Bank, Andhra Bank, IDBI Bank and Bank of Baroda) for self-employment and higher education.

NHFDC provides Self Employment Loan ; UptoRs. 25 lakh (Interest rate of 4-8% p.a); Education Loan : Study in India (Rs. 10 lakh), Rs. 20 lakh (abroad) interest rate @ 4% p.a; Skill Training to PwDs : Free of cost and stipend of Rs. 2000 per month; Scholarships : 3000 scholarships for professional courses.

iv) The Government of India has set up 17 Vocational Rehabilitation Centres (V.R.C's). The main purpose of these centres is to evaluate the capabilities of disabled clients. They also sponsor candidates to potential employers. There is acute shortage of sheltered workshop for severely disabled persons. The Ministry of Social Justice and Empowerment is therefore exploring the production centres manned largely by disabled persons on the pattern of welfare factories in China.

The main objectives of V.R.C's are:

- Vocational evaluation and adjustment of disabled persons
- Assessment of the medical, psychological, rehabilitation needs
- Assist in developing rehabilitation plans depending upon the specific needs
- Sponsor disabled registrants against notified/identified vacancies
- Act as distribution centre's for various schemes like scholarship/aids and appliances
- Make referrals to financial institutions for funding self-employment ventures

v) National Awards for People with Disabilities :

On the International Day of Disabled Persons on 3rd December each year, the MoSJE has been giving Nationals Awards since 1969 in different categories including best employer of the disabled, outstanding employee, best individual, institutions, creative disabled persons etc. it has served the aim of creating awareness amongst the disabled persons and brought them in the mainstream.

vi) District Disability Rehabilitation Centres (DDRC) -Background

During 1985-1990, District Disability Rehabilitation Centres (DDRCs) started as outreach activity of the Ministry of Social Justice and Empowerment of Government of India for providing comprehensive services to the persons with disabilities at the grass root level and for facilitating creation of the infrastructure and capacity building at the district level for awareness generation, rehabilitation and training of rehabilitation professionals. Suitable changes as were deemed necessary for the PwD Act have been effected accordingly.

The District Disability Rehabilitation Centres are set up under the Plan Scheme . "Scheme for implementation of Persons with Disabilities (Equal Opportunities, protection of Rights and Full Participation) Act 1995 (SIPDA). Initially, establishment of DDRCs started as an out reach activity of this Ministry for providing comprehensive services to the persons with disabilities at the grass root level and for facilitating creation of the infrastructure and capacity building at the

district level for awareness generation, rehabilitation and training of rehabilitation professionals.

Objectives of setting up of DDRC

Setting up of District Disability Rehabilitation Centres (DDRCs) which would provide rehabilitative support to persons with disabilities through

- Survey & identification of persons with disabilities through camp approach;
- Awareness Generation for encouraging and enhancing prevention of disabilities, early detection and intervention etc.
- Early Intervention;
- Assessment of need of assistive devices, provision/fitment of assistive devices, follow up/repair of assistive devices.
- Therapeutic Services e.g. Physiotherapy, Occupational Therapy, Speech Therapy etc.;
- Facilitation of disability certificate, bus passes and other concession/facilities for persons with disabilities;
- Referral and arrangement of surgical correction through Govt. & Charitable institutes;
- Arrangement of loans for self employment, through banks & other financial institutions;
- Counseling of persons with disabilities, their parents & family members;
- Promotion of barrier free environment;
- To provide supportive and complimentary services to promote education, vocational training and employment for persons with disabilities through:-
- Providing orientation training to teachers, community and families
- Providing training to persons with disabilities for early motivation and early stimulation for education, vocational training and employment.
- Identifying suitable vocations for persons with disabilities, keeping in view local resources and designing and providing vocational training and identifying suitable jobs, so as to make them economically independent.
- Provide referral services for existing educational training, vocational institutions.

4.7 Documentation of Assessment, Result Interpretation and Report Writing-Implications of Assessment, Outcomes for Community Living.

Documentation of Assessment

The assessment process involves collection of data through various modes. This may involve collection of data from various sources such as parent, caretaker, teachers, therapist, psychologist, social workers, and observation of child, testing informal and formal setting etc. Further the data may be collected in one setting or over a span of time. This is essential as the assessor or teacher aims at collecting information in all the areas of development of the child with mental retardation by using the appropriate and standardized special education assessment tool. Information should be collected through observation, interview and direct testing. The assessment data is used for the classification and placement decisions of students with mental retardation. The checklist should be kept properly for the documentation of the assessment report. Depending on the need of the child, age, ability, level etc different checklist may be used. Every standardized tool have data collection formats and specific scoring system to record the assessment. Initially case history format is used as a basic documentation tool for assessment. Psychologist, therapist and others involved in the assessment process may use different self-developed or standard formats to document assessment information. The assessment documentation process must be able to elicit and document every relevant information regarding the child, family, community etc those may be even distantly be related to making decisions about the child's educational programme.

Result Interpretation

Interpretation is a process of perceiving the pros and cons of assessment report or evaluation report. Interpretation helps the educator, the parents and other professionals' associated with the training programme to understand the assessment report. It is a relevant factor influencing the training programme.

Interpretation must be done at three levels of assessment.

Level - 1 Interpretation during the initial assessment.

Level - 2 Interpretation during the training programme

Level - 3 Interpretation after the completion of training programme.

Level - 1 Interpretation during the initial assessment.

When an individual training programme is decided for a student, it is essential to collect information about the student's background, student's present performance, student's ability and resources to be mobilized to accelerate the training programme. Information collected from all the above factors must be interpreted to see all possible positive factors that could be integrated for the training programme.

- Interpretation of Personal Data
- Interpretation of Student's Ability
- Interpretation of Student's Performance
- Interpretation of Resources

Interpretation of Personal Data

During history taking to understand the personal data such as pre-natal, natal, post-natal, education, family, social, medical, immunization and developmental data ; it is essential to conclude the factors responsible for the student's condition, considering the above factors to understand the student helps in developing training programme for the student.

Interpretation of Student's Ability

It is essential to understand the student's ability in terms of intelligence, and aptitude. Assessment also should focus to understand the interest and attitude of the student for different training Programmes. The student's overall ability and specific ability must be assessed and interpreted to decide specific task for training.

Interpretation of student's Performance

Student's performance must be understood from different angles. Usually the performance is elicited by using a behavioural scale during assessment. Other than the result of the behavioural scale, the past opportunity given to the student must be noted. The background information of the student like the family details, education, involvement in training, and exposure and social-cultural background must be understood for giving a conclusive statement on performance.

Interpretation of Resources

Data must be collected to understand the resources available for development of the student and training to the student. For example, toilet training to a ten year by the Intellectual disability. Before deciding the training place, nature and training programme, it is essential to know a few aspects like:-

- The type of toilet used by the family
- The person would be involved in training
- The cultural belief for toileting
- Cleaning methods after toileting etc.

Developing teaching materials for the student must be based on the resources of the parents; if the parents are affordable to purchase highly costly materials then it will be worthwhile to prescribe such materials. On the other hand, the poor people could be advised to develop teaching materials with locally available materials with less expenditure.

Level - 2 : Interpretation during the training programme

It is essential to see the speed of training, and other relevant factors influencing training during different phases of the programme. Understanding the result, the methods, the efficiency of materials, and the usefulness of techniques is essential to enhance the training programme. Hence, it is essential to interpret the intermittent improvement, and other associated factors for training prgramme. For example, brushing skills is decided for training a eight years trainable child with Intellectual disability. The period decided for training was three months. After two months of training, it was observed that, the student has achieved the task. But, the parents are still continuing the training as because the period was decided for three months. There may be other instance wherein a particular strategies or a particular teaching aid may not be effective for a long time; however the training is continued with same strategy and materials due to absence of intermittent interpretation. Here, it must be noted that, interpretation during the training programme would help to bring changes in the training programme as per the requirement.

Level - 3 : Interpretation after the completion of training programme

After the completion of training programme, it is essential to review and understanding the various factors those influenced the training programme. Interpretation of the overall result, specific result i.e. result in each skills, the methods used for training programme such as - a) play way method, b) structured method, c) project method and techniques used for training programe. It is essential to understand the whole scenario of the training programme. It also give idea for deciding the further training programme to be given to the student. The interpretation of level - 3 is also helpful for modification in existing programme in case the goals were not achieved and also for further planning.

Report writing

The interpretation and reporting of assessment results are guided by a set of general principles.

Using Structured format : When analyzing and reporting assessment result, remember the reasons for referral and work toward answering the main assessment questions. Whether the interpretation and report are verbal or written, you must proceed in an orderly fashion to present a cohesive picture of the student's learning problems.

The major components of an assessment report are :-

- Identification Data—All essential demographic information about the student : name, gender, address, birth date, and so forth.
- Reason for Referral - The basis for and source of the referral.
- Relevant Background - Significant information about the student's medical, developmental, educational, and socio-cultural background.
- Behavioural observations - Description of the student's behaviour during assessment.
- Assessment Result and Discussion - Scores and other results in pertinent areas, such as personal, social, communication, reading, mathematics, and so forth.
- Summary and Conclusions - A brief statement of the level of performance and strengths and weaknesses in the areas assessed.
- Recommendations - The goals and objectives, special service, and service delivery model(s) appropriate for the student's educational needs.
- Data Sheet - All the formal and informal results for independent analysis and reference.

Some important tips for report writing :

- Report only relevant data - Choose the most pertinent data to answer the assessment questions and disregard the rest.
- Report information once and then mention it only as needed avoid making the same point again and again. For example, distractible behavior has bearing upon all the results. Discuss it once in the appropriate place and then clarify its significance at a crucial point.

- Report facts and data accurately and simply-avoid making unfounded statements or inferences.
- Insert sensitive information tactfully-when information may be offensive or unpleasant to someone (for example, information about student abuse, a recent death in the family, or teacher-parent disagreements) and significant for interpreting the data, choose diplomatic language to make the point.
- Note the source of any information and report the data accurately - When appropriate, attribute statements to the parents, teachers, and other people who made them. Useful phrases are "As his mother reported..." or "From an interview with her teacher... "Use similar references in the case of tests and informal procedures, including observations and task analysis, "As measured by the WISC-R..." or "From observations in the classroom..."
- When reporting data from previous assessments do so briefly and with full reference to the source - For example, a useful phrase may be. "The results of a recent psychological examination at Children's Clinic ..." If appropriate, similarities or differences with the data to be reported can be noted in the discussion of results.
- Mention the absence of critical data, such as recent vision and having assessments - such data may be necessary for a full interpretation. When unavailable, it may be one of the recommended areas for further assessment.
- Report any test administration errors or problems and reservations about the findings. This should also be done only once and at the most significant point. Of course, if there were major problems in the administration of tests and the results are highly questionable, you should discard and not report them.
- Consider information about instructional factors in the classroom and non-instructional correlates (medical, social, and cultural) - Test results must be interpreted in relationship to many factors. Among instructional variables are past educational experience and current conditions in the classroom. For example, a teacher may be using a particular procedure that enhances or limits good achievement.
- In addition, the student's medical, social, and cultural background may have bearing upon school performance. For example, a vision problem may be compounding reading difficulties.
- Address discrepancies between data and present possible explanations. For example, there may be disagreement among test results, or between test results and a teacher's

opinion. It may be possible to explain these discrepancies by referring to test construction, student behavior, classroom procedures, and so forth.

- When interpreting test results, remember that there are two levels of analysis : statistical and clinical-interpret tests and other procedures individually and statistically first. Statistical analysis is computing the scores, identifying the important scores for interpretation, and perhaps arranging them on a profile. Clinical analysis establishes whether the performance is average, what the strengths and weaknesses are, and how the performance on the tests relates to other factors. Placing valueson and the making judgments about test performances fall into the clinical analysis category.
- Selectively use theoretical constructs - Their use in interpreting and reporting results may be considered part of a description of the pattern of learning problems or an attempt to unify the results of assessment. However, these efforts may lead to unwarranted statements of cause and effect.
- Reports are written keeping in mind different implication. Different implications of report writing are given below :

A) Writing report for administrative decisions

- Diagnosis and certification.
- IQ assessment.
- Placement in appropriate schools, Vocational training institute.
- Eligibility to various benefits and concessions offered by the governments.
- Access to suitable adaptive devices for independent mobility, communication and learning.

B) Writing reports for educational programming / vocational programming.

This report is solely written by the teacher at the initial stage, formative stage and summative stage for promotions to next level or for future use. The following points are to be kept in mind while writing the reports.

- Objectively
- Relevance or use
- Clarity in content and presentation

- Authenticity
- Unbiased
- Up to date
- Simplicity
- Precise
- Provision of support documents where applicable

C) Writing reports for referral

Referrals are made in the beginning at the time of initial team assessment, during the implementation of the educational training and / or on the completion of school education.

D) Writing reports for alternative placements

This is a concept more applicable to the western countries where the placements are governed strictly by law. A team decision becomes absolutely essential to decide on the placement of the child with inclusion in focus.

Community - In general terms, a community is a sub-set of society but larger than a family. It constitutes a group of people, living together in social context generally with a common goal, common cause and develop a sense of belongings.

Using assessment information for Community support for Individual with Intellectual **Disability :** Collecting information through assessment report is necessary to make the community more accessible in resource mobilization. Resource mobilization is a philosophy of offering services to disabled persons in their own communities. The persons with intellectual disability face direct and indirect discrimination in society ; assessment result gives authentic information of not only their weaknesses but also their strengths, hence helps to creat a positive attitude of the society towards them.

vhis or herstrengths and weaknesses, abilities and interests along with demographic profile, these data facilitates the community resource to be mobilized to promote the education and rehabilitation of people with intellectual disabilities. The society can make itself more accessible by the help of a compact assessment report.

Community Mapping - This means preparing a list of all those resources in the community,which can help the education of children with intellectual disability.

Networking - for developing community awareness and resource mobilization for rehabilitation of persons with intellectual disability lays in establishing networks i.e. linkages, among those who are directly and indirectly responsible for social change.

4.8 ‘‘Check Your Progress’’

1. Define Assessment. Write down the significance of assessment for adult with intellectual disability.

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2. State the role of vocational assessment for the rehabilitation of persons with Intellectual Disability.

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3. Enlist five purpose of vocational assessment.

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4. State any three important principles of vocational assessment.

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5. State the approaches of Vocational Assessment.

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6. Explain the future peerspective of Vocational Assessment.

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7. Enlist the key components of transition for persons with Intellectual Disability.

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8. Enlist the four staes of trasition according to NIMH transition model

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9. Write short notes on the following :

   a) BASAL—MR

   b) VRC

   c) DDRC

   d) NIMH—VAPS

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10. Write down the several implications of report writing.

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4.9 Let us Sum up

- The information gained through the assessment process have to be utilized meaningfully for the programme planning for independent living of PwlDs. Vocational Assessment has very important role to guide the PWIDS in rehabilitation process which is the ultimate goal. A PwlD becomes independent only through proper rehabilitation. Through vocational assessment the special educator finds out the skills, performance and interest of the persons with Intellectual Disability which helps in planning and executing the planned vocational training programme in individual and group setup. Initially, a baseline assessment should be done using criterion referenced norms to obtain information about the individual's vocational potentialities. Then, formative assessment should focus on information related to vocational training Programme. The final stage encompasses on-the-job evaluation. Choice of vocation is dependent on abilities, interests and aptitude. The avenues may be open employment, sheltered employment or supported self employment, depending on the ability of the student, family resources and plans for the trainee and the ecological details. Since vocational assessment greatly influences vocational training and rehabilitation, professionals have become increasingly concerned about the use of appropriate assessment strategies. Broadly there are two types of assessment approaches; namely: the traditional and contemporary assessment approaches.
- It is essential to develop a formal, individualized transition plan for every student with intellectual disability. Formal plan should specify the objectives to be acquired. The plan should include annual goals and short term objectives that reflect skills required to function on the job, at home and in the community. Wherever appropriate, the person with ID should be consulted for his views and options as he is the consumer of the plan proposed. Parent education meeting should be conducted by the school personnel for the purpose of enhancing parental involvement. Inter-agency co-operation refers to coordinated efforts across different agencies like schools, rehabilitation services and vocational training centers so as to ensure the delivery of appropriate, non-duplicated services to each student. As a result of the implementation of individualize transition plan the trainee should be in a position to work in open employment, supported employment, sheltered employment or self-employment setup. The follow up services in addition to helping the students in retaining the job will help the professional in gathering information about the effectiveness of the transition programme. Transition from school to work means

scientifically plan transfer of a student from school to world of work with requisite skills. Transition plans may begin with a parent, school or an agency responsible for providing post school vocational services. The most practiced transition model in Indian context is NIMH Vocational Transition model for persons with Mental Retardation (Intellectual Disability), developed by National Institute for the Mentally Handicapped, Secunderabad. This model states that transition plan is very important stage and role of special educator is also essential in planning and exhibiting the proper transition programme for the overall development of the persons with intellectual disability.

- BASAL-MR–Behavioural Assessment Scale for Adult Living- Mental Retardation. (Reeta Peshawaria, O.K. Menon, Don Bailey et al., 2000) .This scale has been developed at National Institute for the Mentally handicapped Secunderabad. This too! is developed for assessing the adaptive and maladaptive behavior of the adult persons with Intellectual Disability (Mental Retardation) above 18 years old. BASAL-MR gives a profile of skill behaviours and problem behaviours, while the problem behavior checklist is meant to measure only the problem behaviours of the adult person withlntellectual Disability.

  In Indian content the first assessment tool for vocational assessment was developed by the National Institute for the Mentally Handicapped, Secunderabad. The name of the scale is "NIMH Vocational Assessment and programming system for persons with Mental Retardation. This vocational assessment tool was developed by A.T. Thressia Kutty in 1991. By using this tool conducting the vocational assessment is simple, easy and cost effective. Here assessment of the persons with Intellectual Disability is conducted in systematic manner. There are two aspects in trainee's skills assessment in the functional vocational assessment: Generic assessment, Specific skills assessment.

- The Government has planned and implemented a lot of schemes, programmes and projects which are supported by an 'infrastructural network' of the Disability Division in the MoSJE.

i) National Action Plan - A National Action Plan for Skilling the Persons with Disabilities has been prepared by the Department of Persons with Disabilities (DEPwD). The Scheme aims at providing financial assistance for skili training for persons with disabilities.

ii) The National Skill Development Corporation India, (NSDC) is a one of its kind, Public Private Partnership in India. It aims to promote skill development by

catalyzing creation of large, quality, for-profit vocational institutions.

iii) The National Handicapped Finance and Development Corporation (NHFDC) was set up by the Ministry of Social Justice & Empowerment, Government of India on 24th January 1997 as a company not for profit under section 8 of Companies Act 2013 with the objective of serving as a catalyst in the economic development of PwDs.

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- The assessment process involves collection of data through various modes. This may involve collection of data from various sources such as parent, caretaker, teachers, therapist, psychologist, social workers, and observation of child, testing informal and formal setting etc.

Result Interpretation

Interpretation is a process of perceiving the pros and cons of assessment report or evaluation report. Interpretation helps the educator, the parents and other professionals' associated with the training programme to understand the assessment report. It is a relevant factor influencing the training programme.

The interpretation and reporting of assessment results are guided by a set of general principles. The interpretation and reporting should present a cohesive picture of the students' performance. It should include the following components : Identification data, reason for referral, relevant background, behavioral observations,

assessment result and discussion, summary and conclusions, recommendations, data sheet. There can be many purposes of report writing.

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Unit - 5 ❐ Assessment of Family Needs

Structure

5.1. Introduction

Family is the smallest unit of the society in which members are held together by marriage of two person of opposite gender of all human groups, family is the most important primary group which consists of with or without children. The benefits of family cantered interventions are being greatly recognized now more than before. Efforts are being directed towards involving parents and other family members in the training and rehabilitation of the individuals with intellectual disabilities precisely for the reasons that such approaches results positive in both parent, family and child outcomes. It helps in enhancing child development, reducing stress in the family, increasing family coping strategies and also leads to improve relationships within the family. For strengthening the family having children with intellectual disabled the intervention need to be directed towards meeting the needs of the index child ,of parents, siblings and extended family members as also recognize ,promote and utilize the existing strengths of the families.

What is needs ?

Needs can be defined as the gap between what is and what should be. A need can be felt by an individual, a group, or an entire community. It can be as concrete as the need for food and water or as abstract as improved community cohesiveness. An obvious example might be the need for public transportation in a community where older adults have no means of getting around town. More important to these same adults, however, might be a need to be valued for their knowledge and experience. Examining situations closely helps uncover what is truly needed, and leads toward future improvement.

What is Resouce?

Resources, or assets, can include individuals, organizations and institutions, buildings, landscapes, equipment — anything that can be used to improve the quality of life.

What is Family?

"Family is a group of persons united by the ties of marriage, blood or adoption, constituting a single household interacting and inter-communicating with each other

in their respective social roles of husband and wife, father and mother, son and daughter and hence creating a common culture." (Buigess and Locke).

It is of different types like Joint, nuclear, extended.

What is extended family?

An **extended family** is a **family** that extends beyond the nuclear **family**, consisting of grandparents, aunts, uncles, and cousins all living nearby or in the same household. An **example** is a married couple that lives with either the husband or the wife's parents.

To enhance the effectiveness of the family it is important to identify the needs of individual family members, locate resources for meeting those needs and help by guiding the family members in utilizing these identifying resources. Such a realization has already lead to the amendment of the U.S. Education of Handicapped Act of 1986(PL. 99-457)In the revised version of PL 99-457 necessitates by law to develop individualized family service plan(IFSP) for families who have children with developmental delays or those who are at risk for developmental delays. The law includes IFSP only for the families having children below 3 years, for reasons best known to the people involved in such decision making.

What is IFSP?

An Individualized Family Service Plan (IFSP) is a working document produced collaboratively by program staff and family members that contains the agreed upon Early Intervention services for an eligible child and family. Based on a multidisciplinary eligibility evaluation and any completed assessments, the plan includes services necessary to enhance the development of an eligible child, and the capacity of the family to meet the child's needs

5.2. Objectives

After going through the unit you will be able to:

- Understand about significance of psychosocial needs and its assessment in the family.
- Describe IFSP
- Describe different types of parental, sibling, extended family needs.

- Distinguish between the various types of needs felt by the family members.
- Describe the implications of different needs and its implication in planning IFSP.
- Understand the assessment of family and community resources for inclusion.
- Describe the process of documentation, recording and reporting.
- Discuss the General principles of the interpretation and reporting of assessment results

5.3 Significance of Psychosocial Needs and its Assessment in Family

Learning is a very important phenomenon of human life and it occupies a central position in shaping human behaviour. A child begins his career as a learner at the time of birth and perhaps even before. Learning plays a crucial role in his development, it is through learning that he adopts the habits, customs and values the characteristics of the culture in which he is reared.

5.3.1. Psychosocial needs: Significance

Integration of any child with disability into the society, as far as practicable, is on of the basic objectives of any civilized country. In order to maximize his social integration the child has to be equipped with his potentials which will lead to societal gains by avoiding individual loss and avoiding living of a parasitic life on his family.

In order to achieve this objective it is of primary importance to

1. Understand different kinds of disabilities.
2. Different psycho-social aspects,i.e; self and social understanding ,thinking about the self, emergence of self -recognition and early emotional and social development involved in them.

5.3.2 –Assessment of psycho-social needs in family

It would, therefore, be appropriate to assess the different psycho-social aspects including cognitive, personality, emotional, motivational and other socio-cultural factors separately.

Other than these societal institutional level and group interaction level also can be assessed.

The assessment of

- Cognitive
- Personality
- Emotional
- Motivational and
- other socio-cultural factors will be done by using daily routine assessment schedule and environmental assessment format .These assessment will be done based on criterion referenced test.

5.4 Assessment of Parental Needs and its Implication in Planning IFSP

Parents having a child with intellectual disabilities experience a variety of stressors and stress reactions related to the child's disability. *(Orr et,al;1993)*

5.4.1. Need of the Parents –

Parents have various needs after getting impacted in may ways because of having a child with intellectual disability.

The needs are as follows –

1. Information Needs – It includes the various information condition such as the condition and level of the disability, information regarding assessment reports and outcomes, what will be expected achievement from the particular child, information needs regarding repetition of dangerous sequences and incidence like before. The parents should have proper information regarding materials related to the disability. There should also be a need of information regarding diet and nutrition.

2. Child Management – The parents should have the following need during and regarding the management and intervention of the child with disabilities:-

- Child rearing practice
- Discipline
- Problem behaviour management
- Make the child co-operative
- Training regarding the child i.e; Individualized Family Support Plan (IFSP)

and Individualized Educational Programme (IEP).

- Regular parent and teacher interactions
- All round development of a child irrespective of disability.

3. Service – This will include all the facilities, services and training procedures like:

- Services availability
- Making decision about school
- Training materials making and arrangement of ingredients.
- Home based training programme.
- Both positive and negative effect of regular and special school.

4. Facilitating Interaction – Parents are informed and counselled about the following daily interaction:

- Explaining about the child's condition
- Explain about the priority need of the family involvement.

5. Hostel – Parents find hostel or residential unit for their disabled child during their job time and after their life time .So there are following needs regarding hostel needs :

- Nature of hostel
- Making decision regarding staying and keeping at hostel.

6. Personal –Emotional - This need is most important for the parents having child with disability. This includes:

- Time to self both the parents.
- Talk about personal problems.
- Helping others and asking help when sad or depressed.
- Physical health problems.
- Planning and discussion about another child.

7. Personal –Social -

Due to having a child with disability the parents become rigid, sometime depressed and they become very contracted within themselves. For this reason the personal – social needs are aslo important for these parents.

- Discussion with friends.
- Discussion with other parents.

8. Physical Support -

Support may be of physical, social, moral, financial matter. Physical support includes human resource support along with appropriate physical structure because these parents's own physical health is reported to be a greater risk. To overcome it following points is considered:

- Manual support for transportation
- Domestic support for child care.
- Transportation for child's training.

9. Marriage - Every parent have a dream about a new social and emotional life of their children. There is various misconceptions also exist regarding the cure of mental retardation just being married. Parents think about its solution through marriage of their children.

10. Sexuality - Sexual need and urge also include an important need of every human being according to Maslow's hierarchy (Physiological need which include sexual need).and it cannot be denied also. Parents also become tensed about the sexuality and sexual needs of their children. They become tensed about the non fulfillment or expression of those needs in any situation. There should be proper guidance about this matter to the parents having disabled child.

11. Financial - Financial burdens may mount on the parents having children with intellectual disabilities. This includes

- Financial help for services and service providers
- Financial help to buy and maintenance of training materials.
- Financial help for other intervention facilities and appointment of human resources.

12. Government Benefits - Parents should be aware about various central and state government policies regarding concessions and benefits i.e.; getting disability certificate, transportation facilities, educational, financial facilities, awareness about grievance readdresses. Parents should also have a need to know about various national acts and policies regarding disability. The main acts include PWD Act, 1995, National Trust Act, 1999, Right to Education Act, 2009 which will give them opportunity to avail all

types of facilities and concessions.

13. Vocational Planning- Vocational efficiency is one of the important aim of special education .To fulfill this aim the parents should know about the vocational rehabilitation, job survey, various employment models etc. Vocational rehabilitation makes a person with intellectual disability functionally independent in the community.

14. Future Planning- Irrespective of the disability as well as any human being every parents have a dream about their child and accordingly they plan for it.It becomes life long responsibility oriented programme for those parents who have a child with intellectual disability. For this future planning parents need to do:

- Financial Planning
- Prepare and mention the appropriate inheritance for their property.
- Financial and physical structure planning about social security of the child.

15. Family Relationship - The presence of a child with intellectual disability in the family calls for a lot of adjustment on the part of the parents and the family members. Interpersonal relationships with in and between the family members get affected. Marital harmony gets disturbed owing to various child related reasons such as meeting extra child-care responsibilities and burden, affecting sexual relationship between parents due to less privacy, more fatigue and fear of producing another child with disability.

5.4.2 Assessment of parental need

A semi-structured interview schedule NIMH-FAMNS (Parents) is used to elicit the needs of parents having children with intellectual disability. It consists of total 19 main area and 60 items /needs. The score of each item on the schedule ranged from (no need) ; 1 (Not sure) ; 2 (Little a need) and 3 (Very much a need).

5.4.3 Implications in planning IFSP

The IFSP is the written plan that lists services and supports to eligible children and families. At Early Intervention, we believe that no one knows the child as well as parents. Parents are a partner in developing the IFSP, and it is important for them to be part of the process. In this intervention programme parents will identify the assests, needs, choices of their children and also set the hope about their child which have a great implication in all over family life which are as follows:

- Individualized need based intervention programmes must be carried out with parents and goals for intervention should always be set in consultation with the parents.

- In order to seek greater co-operation from parents, it is essential to meet identified parental needs along with the child's specific training needs.
- Understanding and knowledge related to the functioning of the families, group dynamics and also skills in counselling, supportive psycho-therapy are essential for working effectively with families having individuals with disabilities.
- Service providers need to equip themselves with the necessary knowledge and basic counselling skills to communicate diagnosis and needful information to parents in an empathetic and sensitive way.
- Irrespective of the age of the child with intellectual disability, parents are concerned about the future planning for their child; they are eager to learn about his /her expected achievement and progress, vocational rehabilitation and issues related to sexuality and even marriage. Professionals need to counsel parents on such issues rather than postpone it for future consultations. It is important that professionals provide parents with honest and needful information before the parents shape their own thoughts and behavior toward meeting the needs of their child.
- Parent during the initial contact generally convey child related needs to professionals and are guarded to state needs related to personal –emotional aspect. However, a skillful professional through effective counselling skills should be able to tap the personal –emotional needs as well as also the needs related to family relationships, if required. Intervention programmes designed to meet family needs facilitate effective coping.
- Service providers need to have update information on state and central government benefits, legislation and the availability of services to meet this pressing need of many a parent.
- To strengthen the family unit and facilitate healthy interactions and relationships among family members, need based family counselling should be provided.
- Most of the available services resolve around child skill training, at the most involving the mother; the focus of intervention however continues to be the child. Efforts must be made to stretch the services to involve fathers and other family members to build support for the mother.
- Parent support groups need to be encouraged to help meet various needs for the parents such as sharing information and building parent to parent support.

- Indigenous and culture specific models of care which are acceptable to Indian parents need to be developed to meet physical support, needs of parents as also the financial needs.
- Efforts nedd to be made to set up need based services in non-urban areas. However need for expansion of services in urban areas cannot also be over-looked.
- Efforts should begin early to strengthen the families by meeting their identified needs.This will help retain children with intellectual disability with their families providing them with a better quality of life.
- Culturally relevant materials in print, audio or visual must be provided early to the parents and families for building awareness, right knowledge and correction of misconceptions, if present.
- Need based training workshops should be conducted for parents to empower them with the necessary knowledge and skills related to child management needs.
- Programmes for parents need to be conducted which could help clarify issues on sexuality, marriage and future planning related to financial and social securities of their child.

5.5 Assessment of Sibling Needs and its implication in Planning IFSP

5.5.1. Sibling Need

The presence of an individual with intellectual disability in the family call for a lot of adjustments on the part of the parents, siblings and other significant family members (Peshwaria & Menon,1991). Identifying and meeting individual needs of various members in the family is the only way to strengthen the family having a child with intellectual disability. Beyond the typical needs experienced by siblings with the birth of a brother or sister, increased stress and additional needs for support are experienced by siblings having brothers or sisters with disability. These unique needs may take the form of family support, assistance, information etc. Thus, to strengthen families having individuals with intellectual disabilities, interventions must recognize the feelings and needs of the siblings. (Turnbull & Turnbull,1990).

Although siblings may not always explicitly reveal their needs, the research does suggest that siblings of persons with handicaps do have a number of special needs related to

themselves, their families, and the community. However till date very few attempts have been made to empirically study the needs of siblings having brother or sister with intellectual disability. Anecdotal reports have been the main source of identifying needs expressed by siblings. Powell & Ogle (1985) contended that special concerns and unique needs will vary from sibling to sibling based on a number of individual characteristics of the family system. Broad interpretation of the research findings indicate that siblings of children with handicaps have a range of needs from knowing the cause of handicaps, how to get along with their handicapped sibling better, what to tell their friends about their handicapped sibling, future role , to dealing with parental expectations. Children are a source of strength for parents. This relationship assumes even greater significance when there is a handicapped member in the family and especially for a country like India where there are no special security systems and siblings naturally assume the role of guardianship of their brother/ sister with intellectual disabilities after the death of their parents. Within this context, to strengthen this natural resource of support i.e., the sibling by identifying and meeting their unique needs becomes imperative. The empirical understanding of these siblings having brothers/sisters with intellectual disability in Indian families in terms of their impact needs and involvement are far from adequate and hence need priority.

5.5.2 Assessment: The needs of siblings having a brother /sister with intellectual disability will be assessed by using a specifically developed semi-structured interview schedule NIMH FAMILY NEEDS SCHEDULE (Siblings) shortly known as NIMH-FAMNS(Siblings). The NIMH-FAMNS (Siblings) consisted of 16 different needs. The score of each item on the schedule ranged from 0 to 2 (0-no need, 1- Little, 2- Very much need) so that higher the score, greater is the intensity of the need expressed by the sibling.

According to NIMH-FAMNS (Sibling) the various sibling needs are as follows:

1. Information: condition
2. Expected achievement
3. Training regarding the sibling management.
4. Hostel placement provision and information.
5. Information explaining the condition.
6. More time: to self.
7. Help: Future Plan.

8. Information: Resources.
9. Information about the training programme.
10. Expecting equal attention.
11. Normal expect: Parents.
12. Help: mediate family.
13. Information: Motivate.
14. Awareness programme.
15. Information: Government Benefit.
16. Others

5.5.3 Implication in planning IFSP:

Unlike parents siblings also have a greater role in IFSP for the eligible child.

- Siblings do require information on the condition of their brother/sister with intellectual disability. They also require knowledge and skills to train and learn to manage behavior problems of their affected brother/sister effectively. To meet such needs of siblings, needs based intervention programmes such as Behaviour modification workshops could be conducted.
- Siblings do not only require help in meeting the needs of their brother. /sister with intellectual disability but they also require help for themselves in planning for their future.
- Sibling groups could be initiated to help siblings share their concerns with each other. Interactions between siblings could contribute immensely in resolving their emotional reactions and help learn from each other's experiences, the ways of coping with common situations encountered by them. Individual and group counselling programmes for siblings can be of great help.
- Parents and family members need to become aware of the special needs of siblings. Non-handicapped siblings i.e. brothers and sisters may also need to understand each others' needs and help share the extra responsibilities equally.
- Intervention programmes should emphasize and encourage involvement of non-handicapped siblings with their brother/sister with intellectual disability right from the beginning when a child with intellectual disability is identified in the

family. This would help shape up siblings to accept, adjust and also contribute constructively in strengthening the families.

- Parents are generally the decision makers for their children especially so when the children are still young. Hence, parental acceptance of siblings' involvement becomes one of the crucial factors in facilitating the initiation or conduct of intervention programmes with the siblings. Parents may need to be convinced on the merits of sibling involvement as also that, such an involvement will not adversely affect the non-handicapped sibling.

5.6 Assessment of Extended Family Needs and its implication in Planning IFSP

5.6.1 Need of grandparents:

Grandparents constitute important part of the environment that the index child must inevitably interact. Typically in India ,being elders in the family ,grandparents to a large extent influence the decision making related to child care ,nursing, nutrition and wide ranging matters in family life. Depending upon their resources, the availability of time, their age and physical health, most often the grandparents are drawn into the role of caregivers or supervisors of caregivers.

With rapid urbanization, even though the traditional joint family system is fast disintegrating, yet grandparents continue to play an important and significant role which has direct bearing on the child with intellectual disability and the family.

Following are the categories related to the needs reported by grandparents of children with intellectual disability:

1. Cure: Intellectual disability – Looking for a treatment or a therapy that will cure the condition of intellectual disability.
2. Guidance: Help family – Guidance from the therapists as to how they can help the family.
3. Information: Government Benefits – From where and what are the benefits available from the Government for such children.
4. Care: Future – Future social security of the grandchild.
5. Information: Child management – Availability of training programmes to help

them manage their grandchild.

6. Training Communication – Training programme in language and communication for the grandchild.
7. Cause: Intellectual Disability – Interested to know what caused the condition.
8. Sensitivity : Professionals – Want.
9. Information: resources – From whom and where to turn for help.

5.6.2 Assessment of grand parents need: The needs of grandparents having a grandchild with intellectual disability will be assessed by using a specifically developed semi-structured interview schedule NIMH FAMILY NEEDS SCHEDULE (Grandparents) shortly known as NIMH-FAMNS(Grandparents).The NIMH-FAMNS (Grandparents) consisted of 9 different needs. The score of each item on the schedule ranged from 0 to 2 (0-no need, 1- Little, 2- Very much need) so that higher the score, greater is the intensity of the need expressed by the sibling.

5.6.3 Implication in planning IFSP:

Any work on the families would be incomplete without taking into account the role of grandparents. Grandparents are one of the significant natural support providers to a family having a child with intellectual disability, helpful for developing IFSP

- Grandparents are a great natural resource/support for the families having persons with intellectual disability and hence their role needs to be strengthened. It has been reported by parents that acceptance and support by grandparents' especially parental grandparents is considered as an important facilitator in coping.
- Grandparents are involved in many ways in providing support to the family yet they have expressed the need for further help and guidance from professionals' as to how they can contribute better which must be meet.
- Grandparents do get affected in many ways because of having a grandchild with intellectual disability. Help in mitigating such effects must start early with grandparents and strategies for help included in the family intervention programmes.
- Grandparents though have emotional reactions as the strongest impact, yet, while expressing needs they did not seek any help for the same. The need to

resolve or understand these emotional reactions could be explored if necessary during counselling programme.

- Grandparents too have several needs because of having grandchild with intellectual disability in the family. These needs require to be identified and individualized intervention programmmes have to be worked out to meet such needs.
- All the family members including the parents and siblings of the child with intellectual disability must become aware of the grandparents needs and involve themselves in meeting the grandparents' needs. When professionals work towards mitigating the impact and help meeting the needs of grandparents, it would help strengthen grandparents to involve more constructively to the wellbeing of the grandchild with mental retardation and the whole family. Family councelling would go a long way in meeting some of the needs.
- Grandparents could be brought together in a group to share their concern with each other. Interactions amongst affected grandparents could contribute immensely in resolving emotional reactions and learning from each other's experience in coping with certain common situations.
- Professionals working and interacting with the families do need to equip themselves with effective counselling skills to communicate the child's condition and also to have better relationships with all the family members.
- Training programmes for the grandparents could be conducted as per identified needs of grandparents. This would equip them with the knowledge and skills and enable grandparents to spend time with their grandchild more usefully and effectively.

Other than the grandparents there are little need for cousin brothers and other uncle, aunts those who are continuously living with the family which include the entire family member's need are discussing throughout this chapter. Acceptance of these children and involve with them will have greater implication in planning IFSP.

5.7 Assessment of Family and Community Resources for Inclusion and Strengthening of Family

5.7.1. Assessment of family –

In this point we explore the context and process of family assessment with in early intervention programme for children with disabilities or developmental delays. Family

assessments are now a routine, indeed mandated, practice in early intervention programmes.Three primary reasons can be advanced with disabilities.

1. Family assessment recognizes explicitly the need to examine the children's development within their most powerful context, that of the family.
2. Family assessment is grounded in the belief that parents can benefit from focused attention on their capacities for providing a nurturing, informed and attentive environment for their children with disabilities.
3. There is an increasing recognition that the intensity and specificity of early intervention programme need to be tailored to the characteristics and functioning of the family in light of the child's disability or risk status.(Guralnick, 1998)

5.7.2 Assessment of Community Resources

Resource assessment is central to economic development planning since local resources are the primary means through which communities can effect economic development outcomes.

Resource Assessment Goals:

- Identify critical resources and assets
- Evaluate their potential and current contribution to development goals
- Define ways to more effectively apply them

Five resource areas to evaluate:

(1) Land, facilities and infrastructure that supply (and sustain) the physical assets and systems that support economic activity

(2) Human capital and labour force resources, including the education and training system, that provide the skills and talent to form, manage and operate enterprises.

(3) Capital resources that finance businesses, community facilities and other community needs.

(4) Technology resources that contribute new products and processes, technical know-how, and best practices to the economy.

(5) Organizational capacity and relationships to undertake economic development activities.

Documentation, Recording and Reporting Assessment Result

a) Components of assessment report: Documentation and Recording -

The major components of assessment report which are needed to record for documentation are as follows:

1. *Identification Data:* All essential demographic information about the student: full name, address, date of birth, and so forth.
2. *Reason for referral:* The basis for and source of the referral.
3. *Relevant background:* Significant information about the student's medical, developmental, educational and socio cultural background.
4. *Behavioural Observations:* Descriptions of the student's behaviour during assessment.
5. *Assessment result and discussion:* Scores and other results in pertinent areas, such as reading, mathematics, and so forth.
6. *Summary and conclusions:* A brief statement of the level of performance and strength and weakness in the areas assessed.
7. *Recommendations:* The goals and objectives, special services, and service delivery models appropriate for the student's educational needs.
8. *Data Sheet:* All the formal and informal results for independent analysis and reference.

b) General principle of reporting–

The interpretation and reporting of assessment results are guided by a set of general principles —

a) Follow a structured format.

b) Report only relevant data

c) Report information once and then mention it only as needed.

d) Avoid making recommendations or giving ideas for solutions throughout the report.

e) Report facts and data accurately and in a simple way.

f) Insert sensitive information tactfully.

g) Note the source of any information and report the data accurately.

h) During reporting data from previous assessment, do so briefly and with full reference to the source.

i) Mention the absence of critical data, such as recent visual and hearing assessments.

j) Report any test administration errors or problems and reservations about the findings.

k) Consider information about instructional factors in the classroom and non-instructional correlates (medical, social, and cultural).

l) Address discrepancies between data and present possible explanations.

m) Statistical and clinical analysis should be done during interpreting test results.

n) Selectively use of theoretical constructs.

o) Keep a variety of stylistic points in mind. Interpretation and reporting the results require both an excellent understanding of data as well as a good grasp of communication skills.

5.8 ''Check Your Progress''

1. What do you mean by family?

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2. What are the various needs faced by parents?

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3. What is IFSP?Mention the various implication of sibling needs assessment in planning IFSP.

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4. What are the guiding principles of report writing?

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5. How will you assess the needs of grandparents needs in planning IFSP?

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5.9 Let us Sum up

- Families are critical agents in the care, management and habilitation of individuals with intellectual disability. Parents, sibling and other significant family members are increasingly, being involved in the training and habilitation of the individuals with intellectual disability. The underlying concept of family centered intervention is that children's functioning can be maximized by providing services that are designed to enhance the effectiveness of their families. Families are interactive, interdependent systems with individual members reciprocally affecting each other.
- Consequently, any events or changes that affect one member of the family will directly or indirectly affect all other members and therefore affect the family as a whole. Family needs are identified by analyzing the needs of every family members need i.e; parental needs, sibling need and grandparent's need. NIMH Family Needs Schedule (NIMH-FAMNS) are used to assess the needs of various family member according to the relationship which are available in three separate checklists.
- Individual Family service Plan (IFSP) plan required by PL 99-457 that includes the related needs of the family of the child with disabilities. The regulation require that an IFSP or Individual Family service Plan, be developed for each infant or toddler and its family. Family members are taught and trained about

the identification of the assets of the child, need of their child with disabilities, their involvement with them, choice of those children, hope with these children.

- Intervention should be individualized for parents and families as per their individual needs.
- Community is also plays a major role to develop a child. So there is a need of assessing the community resources i.e.; physical, financial, human, technical and organizational resources.
- A community needs assessment identifies the strengths and resources available in the community to meet the needs of children, youth, and families. The assessment focuses on the capabilities of the community, including its citizens, agencies, and organizations. It provides a framework for developing and identifying services and solutions and building communities that support and nurture children and families.
- It's important to have a plan in writing, which shows the work families and staff will do together .Every work with the child should be well documented, and properly reported.

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মানুষের জ্ঞান ও ভাবকে বইয়ের মধ্যে সঞ্চিত করিবার যে একটা প্রচুর সুবিধা আছে, সে কথা কেহই অস্বীকার করিতে পারে না। কিন্তু সেই সুবিধার দ্বারা মনের স্বাভাবিক শক্তিকে একেবারে আচ্ছন্ন করিয়া ফেলিলে বুদ্ধিকে বাবু করিয়া তোলা হয়।

— রবীন্দ্রনাথ ঠাকুর

ভারতের একটা mission আছে, একটা গৌরবময় ভবিষ্যৎ আছে, সেই ভবিষ্যৎ ভারতের উত্তরাধিকারী আমরাই। নূতন ভারতের মুক্তির ইতিহাস আমরাই রচনা করছি এবং করব। এই বিশ্বাস আছে বলেই আমরা সব দুঃখ কষ্ট সহ্য করতে পারি, অন্ধকারময় বর্তমানকে অগ্রাহ্য করতে পারি, বাস্তবের নিষ্ঠুর সত্যগুলি আদর্শের কঠিন আঘাতে ধূলিসাৎ করতে পারি।

— সুভাষচন্দ্র বসু

Any system of education which ignores Indian conditions, requirements, history and sociology is too unscientific to commend itself to any rational support.

— Subhas Chandra Bose

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