## 1.1 Conceptual Frame Work

India is the seventh largest country in the world covering an area of about 37, 87,782 sq. KMs. And a population about 1.130 billion people (World Fact Book, 2014), with many geographical, socio, cultural, economic, linguistic, religious variations. Historically, India has been an inclusive society. During the 17$^{th}$ century, community based programmes were the rule and not the exception for persons with disabilities, patronized by the state, and supported strongly by the practices of the prevailing religions, and localized in the communities, based on the specific needs, available expertise and productivity requirements. (Jayachandran, 2004)

Currently, in the independent India after the colonial rule, efforts are being made to recapture the efficacy of the past systems with the refined new developments and trends. The major breakthrough came with the enactment of three legislations for persons with disabilities by the Government of India as discussed in detail later in this paper. In addition, the constitution of India is amended (86$^{th}$ amendment) guaranteeing education as a fundamental right (Art. 21A, 2002). Subsequently, prevention and early detection of disabilities, education, employment, economic rehabilitation, community empowerment and community-based rehabilitation have all been given priority by the government through various schemes and also support to non government organizations. There has been significant development in the area of disability rehabilitation since then. However, considering the nature of the condition, it is essential to see what has been the value addition in the area of intellectual disabilities (Mental Retardation) and what more needs to be done.

Since the human being evolved and started forming their assemblage the Persons with disabilities exists. When we talk of all the types of disabilities, an intellectual disabilities have a condition of incomplete development of mind, which is especially characterized by sub-normal intelligence, thus partially or totally restricting the person's ability to perform certain activities in their life. This is reflecting to impairment in cognitive, emotional or behavioural endowment.

One of the key abilities for human beings to lead an independent life is to take decisions independently, which persons with intellectual impairment are, unfortunately, not endowed with. Therefore they have special needs, which basically include activities for daily living (ADL); instrumental activities of daily living (IADL); reading, writing and arithmetic skills; extracurricular activities, namely sports and games, art and cultural activities; social activities; vocational and employment activities; independent living skills; and community integration; etc. Every activity of persons with intellectual impairment has a meaning in their life, which they have to acquire through individualized education plan supported by related services. viz. counseling services, early identification, audiology services, and assessment of disabilities in children, occupational therapy, orientation, medical services, and mobility services, parent counseling and training, physical therapy, psychological services, recreation, rehabilitation, school health services, social work services in schools, speech-language pathology services, and transportation.

Special Education is branch of Education that deals with the studies about individuals who have problem or special talents in thinking, reasoning, hearing, seeing, speaking, socializing etc. In other word, it is the study of individuals who are different

from average normal person. These individuals are generally called exceptional children. Exceptional children are defined as those "who require special education and related services to realize their full human potential". A major goal of special education is to enable special children to live in most independent way possible. The concept of "Children with special educational needs" is of British handicap i.e. visual and hearing impairment, essential through charitable initiative. Original, provision for children with sensory and physical disability and intellectually challenged were made, and subsequently extended to those with emotional and behavioural problems.

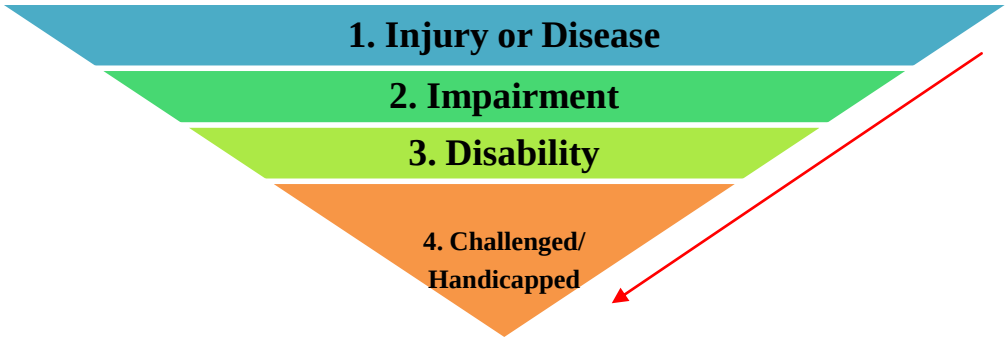
**1.2 Intellectual Challenge/Intellectual Disabilities/Mental Retardation**

There are many challenged condition which makes the normal function of an individual very difficult and leads to dependency. These conditions are increasing day by day because of the changing lifestyle and complicated environment. Challenged children are those children who do not have normal health status either physically, mentally or socially and they requires special care, treatment and education.

**1.3 Concept of Challenged**

According to WHO the sequence of events leading to disability and handicapped or challenged conditions are as follows:

***Figure 1: WHO sequence of events leading to disability***



**1. Injury or Disease:**

Accident or disease mean before birth, at birth or after birth in the person of the accident or illness causing physical, mental or emotional condition arises which are different from the normal case.

**2. Impairment:**

It defines as any loss or abnormality of psychological, physiological or anatomical structure or function, e.g. Loss of vision, loss of hearing, etc. Here primary impairment may leads to secondary impairment e.g. Defective hearing results in learning difficulties and poor school performance, and than impairment leads to disability.

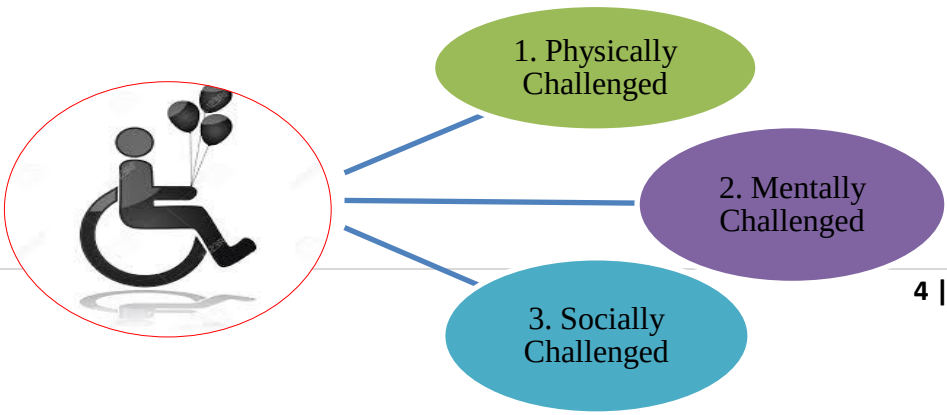
**3. Disability:**

It develops as the consequence of impairment. For example loss of limbs results in inability to walk. Disability is the inability to carry out certain day to day activities which are considered as normal for the age and sex.

**4. Handicapped/Challenged/Disability:**

Handicap is defined as a disadvantage for a given individual resulting from impairment or a disability that limits and prevents the fulfillment of a role which is normal for that individual, depending, on age, sex, social and cultural factors. It reflects that primary handicap may lead to secondary handicap condition e.g. Blindness leads to economical handicapped situation.

***Figure No. 2 Classification of Challenged/Handicapped***



**1. Physically Challenged:**

Physically challenged children are grouped according to their affected part of the body. These Physically challenged children include orthopedically handicapped, sensory handicapped, neurologically handicapped and handicapped due to systemic diseases.

***Figure No. 3 Physically Challenged***


**2. Mentally Challenged**

Mentally challenged is a condition of children is mental retardation. At least two third percent of Indian populations are mentally handicapped in any one form. The synonym for mentally challenged or mental retardation is Cognitive impairment. This term is used now a day's very commonly.

***Figure no. 4 Mentally Challenged***

**3. Socially Challenged:**

Socially challenged children are those having disturbed opportunities for healthy personality development and due to certain social factors leading to lack of achievement of full potentialities. Social disturbances are found in the form of broken family, parental inadequacy, loss of parents, poverty, and lack of educational opportunities, environmental deprivation and emotional disturbances as lack of tender loving care.

***Figure No. 5 Socially Challenged***

**1.4 Intellectual Disability**

Intellectual disability (ID), also called intellectual development disorder (IDD) and formerly known as mental retardation (MR). Mental retardation (MR) is developmental disability that first appears in children under the age of 18. It is characterized as a level of intellectual functioning (as measured by standard intelligence tests) that is well below average and results in significant limitations in the person's daily living skills (adaptive functioning).

The term MR as offensive and the term intellectual disability or intellectually challenged is now preferred by most advocates in most English speaking countries.

**According to DSM-V-TR**, a diagnosis of mental retardation can be made only when both the IQ, as measured by a standardized test, is sub-average and a measure of adaptive function reveals deficits in at least two of the areas of adaptive function. Mental retardation diagnoses are coded on Axis II in the DSM-V-TR. Mental retardation is one of the commonest diagnoses in children attending various psychiatric group in India as well as other developing countries, forming 30-50% of the attendance in the pediatric age group. It is a multidimensional problem and can be seen everywhere. These dimensions include psychological, medical, educational & social aspects, with the social aspects, with the social aspects being most important.

**1.5 Definition of Mental Retardation/Intellectual Disabilities**

**According to Diagnostic Statistical Manual -5 (DSM-5) published in the year 2013 -** American Psychiatric Association America "A disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains."

**According to Diagnostic Statistical Manual –IV Text Revision (DSM-IV-TR) -** American Psychiatric Association America, "Significantly sub-average intellectual functioning– An intelligence quotient (IQ) of approximately 70 or below. Concurrent deficits or impairments in adaptive functioning in at least 2 of the following area: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skill, work, leisure, health, and safety. Onset before age 18 years"

**According to American association on mental deficiency, in the year 1983, "**Mental retardation refers to significantly sub average general intellectual functioning

(BELOW 70) resulting in or associated with concurrent impairments in adaptive behavior and manifested during the developmental period".

**According to Persons with Disability ACT in the year 1995** "Mental retardation means a condition of arrested or incomplete development of mind of a person which is specially characterized by sub-normality of the intelligence."

**According to American Association of Intellectual and Developmental Disability in the year 2002** "Mental Retardation is a disability characterized by significant limitation both in intellectual functioning and in adaptive behavior as expressed in conceptual, social and adaptive skills. This disability originates before the age of 18 years."

**1.6 Epidemiology of Mental Retardation**

- The world population is estimated to be mentally retarded is 4% to 5 %..
- In India 5 out of 1000 children are mentally retarded (Indian express 13$^{th}$ march 2001). As per the report more than 20 million children on an average are suffering with mental retardation.
- Mental retardation is more common in boys than girls.
- Due to associated physical condition the Mortality is high in severe or profound mental retardation
- Common in the age group of 2-3 years. Peak in 10-12 years of age.
- Highest incidence-school-age children with the peak at the ages 10 to 14 years.
- 1.5 times more common among men that among women.
- Prevalence- 1% to 3%.

## 1.7 Classification of Mental Retardation

**According to the Diagnostic Statistical Manual –V Text Revision (DSM-V-TR)**, mental retardation is defined as significantly sub average general intellectual functioning resulting in, or associated with, concurrent impairment in adaptive behavior and manifested during the developmental period, before the age of 18. The diagnosis is made regardless of whether the person has a coexisting physical disorder or other mental disorder.

**Degree of Mental Retardation:**

1. Mild
2. Moderate
3. Severe
4. Profound

- Term significantly sub-average is defined an IQ of approximately 70.
- Adaptive functioning can be measured by using a standardized scale, such as the Vineland Adaptive Behavior Scale.

**Degrees of Severity of Mental Retardation:**

- Borderline intellectual functioning, according to DSM-V-TR, is not within the diagnostic boundary of mental retardation and refers to a full-scale IQ in the 71 to 84 range that is focus of psychiatric attention.
- Mild mental retardation (IQ range, 50 to 70) represents approximately 85 percent of persons with mental retardation.
- Many adults person with mild mental retardation can live independently with appropriate and adequate support and raise their own families.
- Moderate mental retardation (IQ range, 35-50) represents about 10 percent of persons with mental retardation.
- They are challenged academically and often are not able to achieve academically above a second to third grade level.

- As adults, persons with moderate mental retardation may be able to perform semiskilled work under appropriate supervision.

- Severe mental retardation which comes in the category of Intelligence Quotient (IQ) which range from 20-35 comprises about four percent of individuals with mental retardation.

- In adulthood, persons with severe mental retardation may adapt well to supervised living situations, such as group homes, and may be able to perform work-related tasks under supervision.

- Profound mental retardation where I Q range below 20 constitutes approximately one to two percent of persons with mental retardation.

- Most individuals with profound mental retardation have identifiable causes for their condition.

- Self Care skills may be taught to the children with profound mental retardation and learn to communicate their needs given the appropriate training.

- The Diagnostic Statistical Manual –V Text Revision (DSM-V-TR) lists mental retardation, severity unspecified, as a type reserved for persons who are strongly suspected/ identified of having mental retardation, but which cannot be tested by standard intelligence tests or are too impaired or uncooperative to be tested.

- This type may be applicable to infants whose significantly sub-average intellectual function is clinically judged but for whom the available tests (e.g., Bayley Scales of Infant Development and Cattell Infant Scale) do not yield numerical IQ values.

- This type should not be used when the intellectual level is presumed to be above 70.

***Table No. 1 "Mental Retardation" terminology used in other countries***

| **Country** | **Term** |
|---|---|
| India | Mental Retardation, Intellectual Disability |
| United States | Intellectual Disability |
| Australia | Intellectual Disability |
| Canada (English, French) | Mental Deficiency, Intellectual Handicap |
| England | Learning Disability, Intellectual Disability, Developmental Disability |
| France | Mental Deficiency, Mental Apraxia |
| Germany | Mental Handicap, Mental Retardation |
| Italy | Mental Delay, Mentally Deficient |
| Estonia | Mental Retardation |
| Puerto Rico | Mentally Slowed Down |
| Spain | Mental Delay |

***Figure No. 6 Prevalence***

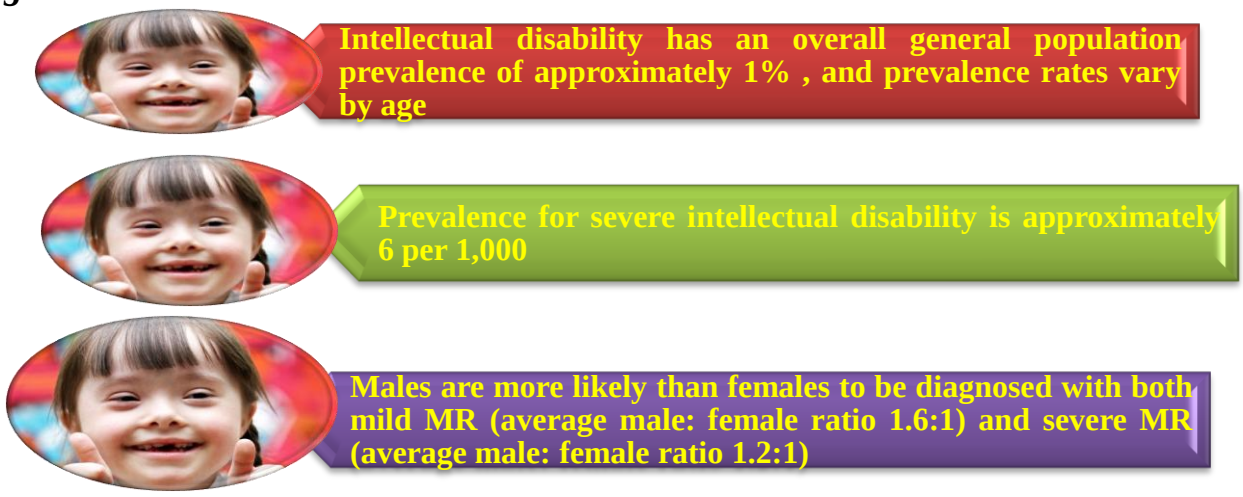



***Figure No. 7: DSM V-TR Levels of Mental Retardatio***

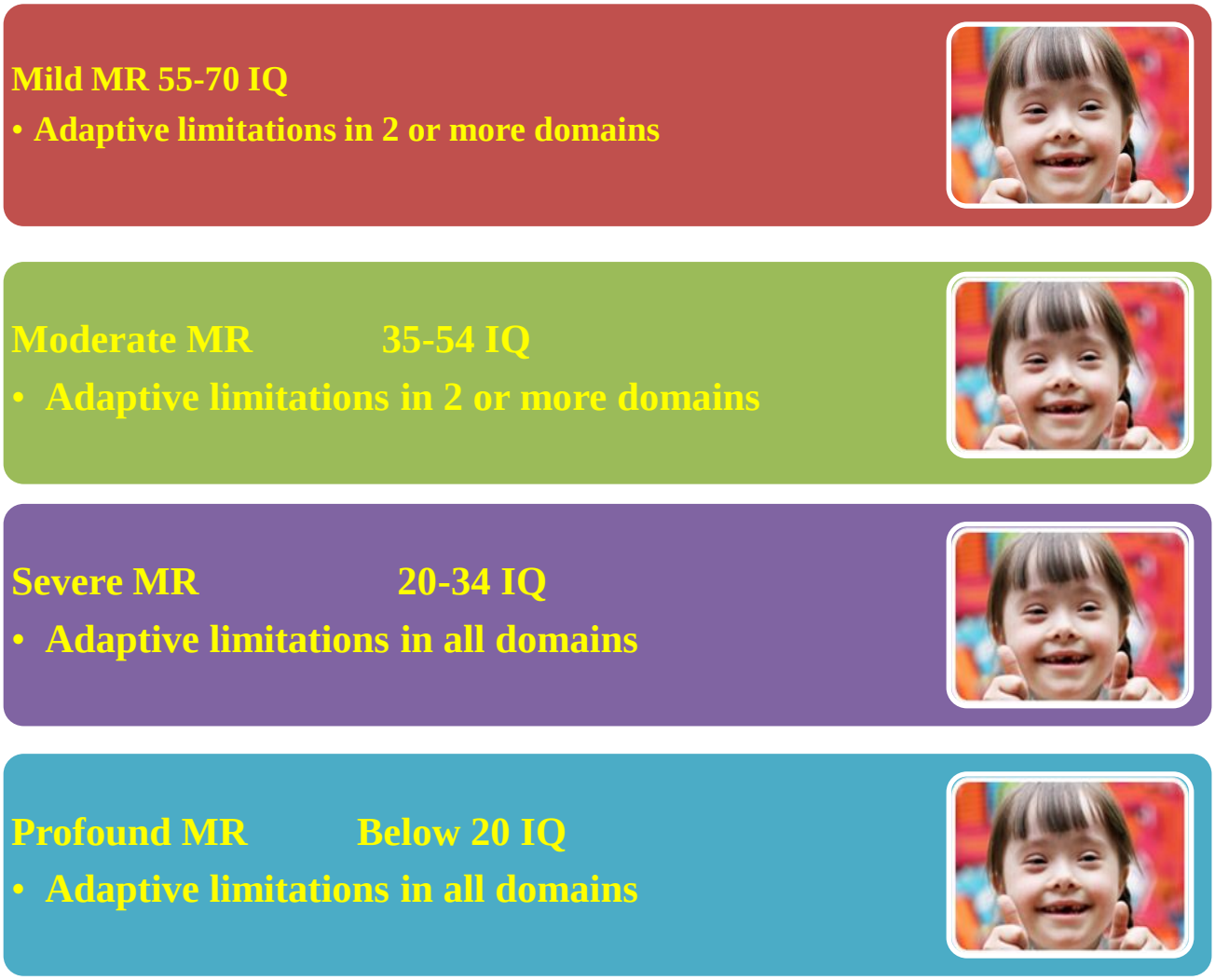


***Table No. 2 Diagnostic Statistical Manual -5 (DSM-5)***

| | **Conceptual Domain** | **Social Domain** | **Practical Domain** |
|---|---|---|---|
| **Mild** | In preschool children, there may be no conceptual differences. For school-age children and adults, various difficulties in learning academic skill needed to meet age-related expectations. In adults, abstract thinking, executive function (e.g., planning), and short-term memory, as well as functional use of academic skills are impaired. | The individual is immature in social interactions compared with typically developing age mates. For example there may be difficulty in accurately perceiving peers' social cues. It has been noticed by peers' that there may be difficulties while regulating emotion and behavior in age-appropriate fashion. | In complex daily living tasks Individuals need some support in comparison to peers. In adulthood, supports typically involve grocery shopping, transportation, home and child care organizing, nutritious food preparation, banking and money management. Support is typically needed to raise a family. |
| **Moderate** | Throughout development, the individual's conceptual skills lag markedly behind in compare to peers. Ongoing assistance on a daily basis is needed to complete conceptual task of day-to-day life, and others may take over these responsibilities throughout the life time. | The friendships with typically developing peers are often affected by communication or social limitations. Significant social and communicative support is needed in work settings for success. | The individual can care for personal needs involving eating, dressing, elimination, and hygiene as an adult, although an extended period of teaching and time is needed for the individual to become independent in these areas, and repeated reminders may be needed. |

| | | | |
|---|---|---|---|
| **Severe** | Caretakers provide extensive supports for problem solving throughout life. Attainment of concepts is limited (e.g., money, time, quantity). | The Spoken language is very limited in terms of grammar and vocabulary. Speech may be single words or phrases, but the communications are focused on day to day activities. Relationships with family members and other familiar persons are here a source of pleasure. | The individual requires support for all activities of daily living needs, which includes meals, dressing, bathing, and elimination. The individual requires supervision at all times. The individual cannot made responsible decisions regarding well-being of self or others. |
| **Profound** | Conceptual skills generally involve the physical world rather than symbolic processes. The individual use objects in goal-directed fashion for the self-care, work, and for the recreation. Motor and sensory impairments may prevent functional use of objects even when certain visual spatial skills are intact (e.g., it can match objects based on physical characteristics means seen visually, but cannot translate to appropriate use). | The individual has very limited understanding of gesture or speech, he or she may understand some very simple instructions or gestures, and expresses his or her own views/desires and emotions mostly through nonverbal, non symbolic communication. The individual enjoys relationships with well-known family members & caretakers primarily. | The individual is dependent on others for all aspects of daily living. Although, individuals without severe physical impairment may assist with some daily work tasks at home, like carrying dishes to the table. The simple actions with objects may be the basis of participation in few vocational activities with high level of ongoing support. |

***Table No.3 ICD-10 (International Classification of Disease): Diagnostic Criteria for Mental Retardation:***

| Class | Degree | IQ |
|---|---|---|
| $F_{70}$ | Mild mental retardation | 50-69 |
| $F_{71}$ | Moderate mental retardation | 35-49 |
| $F_{72}$ | Severe mental retardation | 20-34 |
| $F_{73}$ | Profound mental retardation | <20 |
| $F_{78}$ | Other mental retardation sensory, physical, behavioural impairments preclude standardized IQ testing. | |
| $F_{79}$ | Unspecified mental retardation | |

***Table No. 4 Severity of intellectual disability and adult age functioning***

| Severity | Mental age as adult | Adult adaptation |
|---|---|---|
| Mild | 9-11 year | Reads at $4^{th}$ -$5^{th}$ grade level; simple multiplication and division; writes simple letter, lists; completes job application; basic independent job skills (arrive on time, stay at task, interact with coworkers); uses public transportation, might qualify for driver's license; keeps house, cooks using recipes |
| Moderate | 6-8 year | Sight-word reading; copies information, e.g., address from card to job application; matches written number to number of items; recognizes time on clock; communicates; some independence in self-care; housekeeping with supervision or cue cards; meal preparation, can follow picture recipe cards; job skills learned with much repetition; uses public transportation with some supervision |
| Severe | 3-5 year | Needs continuous support and supervision; might communicate wants and needs, sometimes with augmentative communication techniques |
| Profound | <3 year | Limitations of self-care, continence, communication, and mobility; might need complete custodial or nursing care |

***Source: International Statistical Classification of Diseases and Related Health Problems, Tenth edition (World Health Organization).***

**Conceptual Skills:** The Conceptual Skills includes Communication, functional academic, self-direction, money concepts

**Social Skills:** The Social Skills includes Interpersonal skills, self-esteem, naiveté/ gullibility, self-governance (obeys rules)

**Practical Skills:** The Practical Skills includes Self-care domestic skills, work, health & safety

**1.8 Types of Mental Retardation**

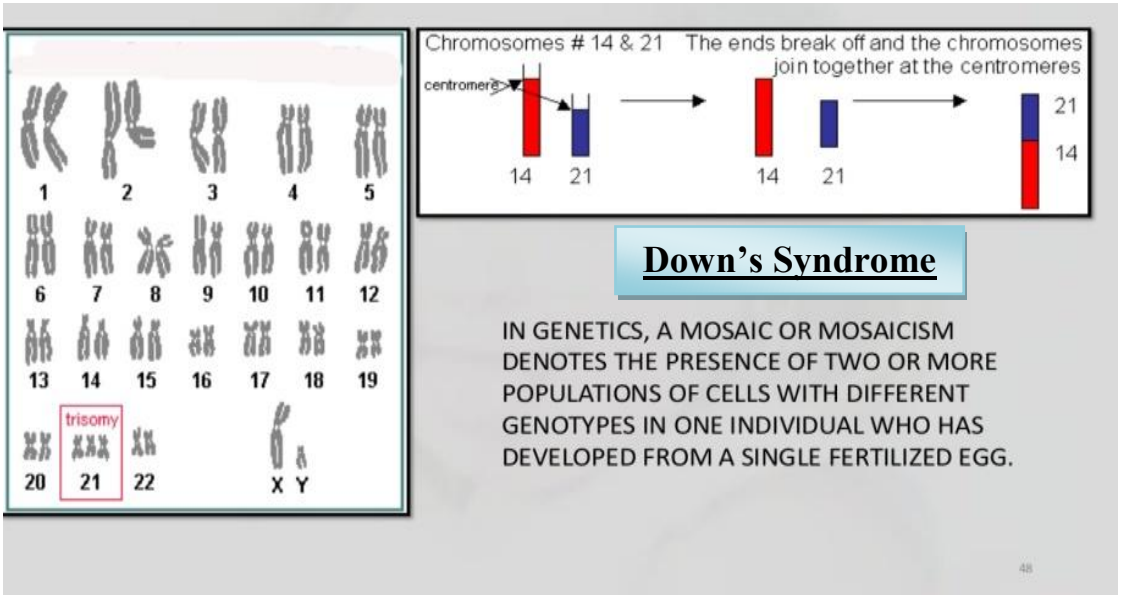
a) Down's Syndrome
b) Fragile X Syndrome
c) Microcephaly
d) Phenylketonuria
e) Hydrocephalus

**a). Down Syndrome**

Down's syndrome is the very common cause of mental retardation and malformation found in the newborn babies. It occurs because of the presence of an extra chromosome.

***Figure No.8: Down Syndrome***

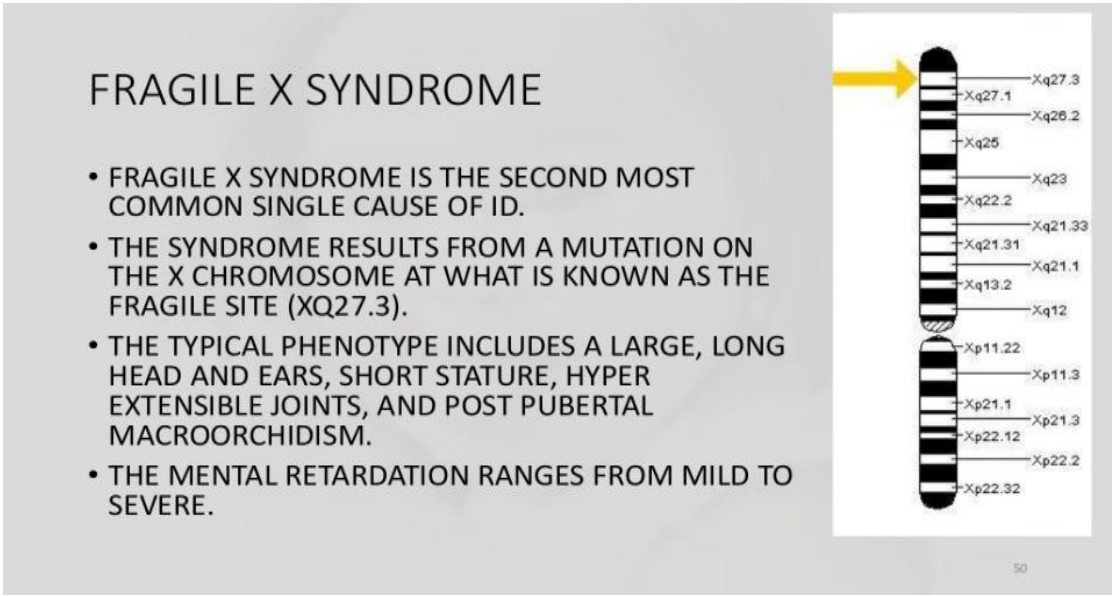
**b).**



**Fragile X Syndrome**

Fragile X syndrome is an X chromosome defect which causes mental retardation and in this the wide range of associated signs and symptoms.

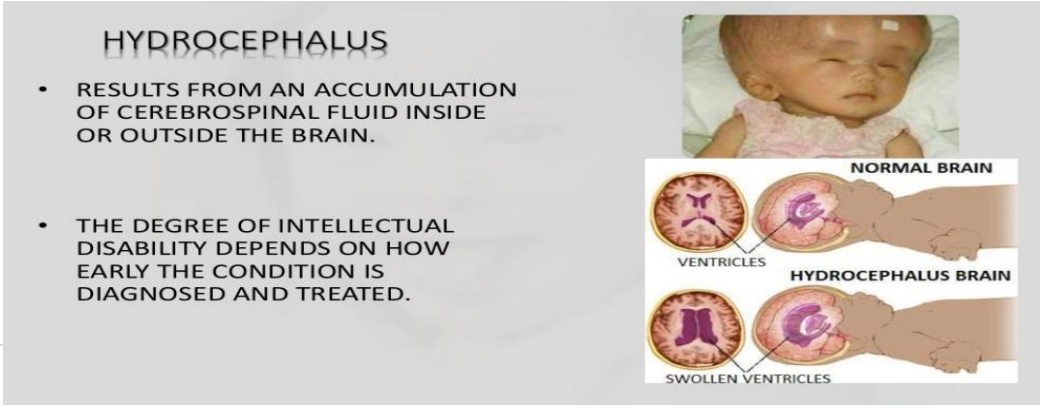
***Figure No. 9: Fragile X Syndrome***




**c). Hydrocephalus**

An abnormal condition in which cerebrospinal fluid collects in the ventricles of the brain; in infants. It may cause abnormally rapid growth of the head and bulging fontanelles and small face; in adults it has been seen that the symptoms are primarily neurological.

***Figure No. 10 Hydrocephalus***



**d). Microcephaly**

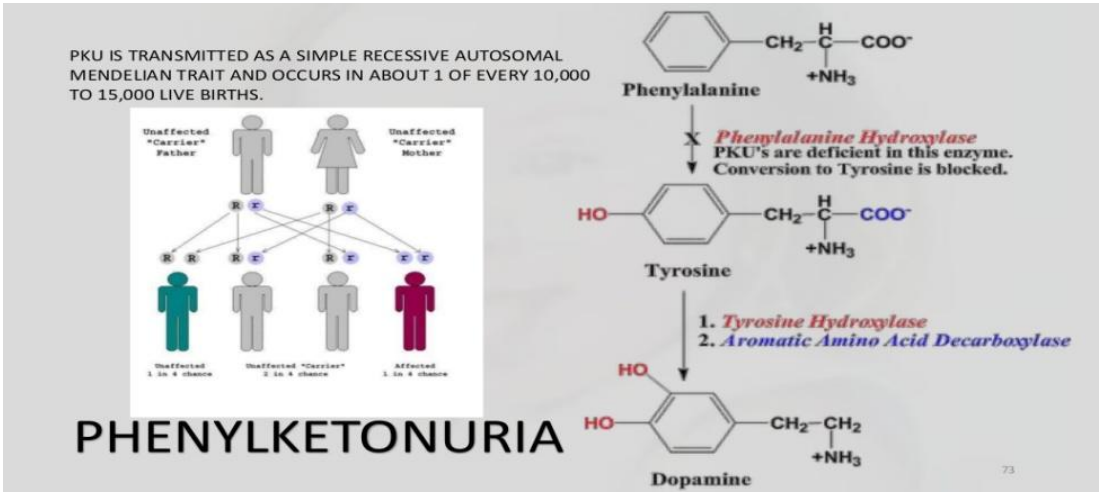
Microcephaly is a neurological disorder in which the distance around the largest portion of the dead (the circumference) is less than and should normally be the case in an infant or a child. The condition can be seen at birth, or it can develop within the first few years following of the birth. The smaller than normal head restricts the normal growth and then the development of the brain.

***Figure No. 11 Microcephaly***


**e). Phenylketonuria**

The inherited inability to metabolize which means process the essential amino acid phenylalanine due to complete or near complete deficiency of the enzyme phenylalanine hydroxylase. Most patients with Phenylketonuria are severely retarded, but some are reported to have borderline or normal intelligence. The Enzema, vomiting and convulsions occur in about a third of all patients. They frequently have temper tantrums and often display bizarre movements of their bodies and upper extremities, including twisting hand mannerism; their behavior sometimes resembles that of children with autism or schizophrenia.

***Figure No.8: Phenylketonuria***




**f). Prader-Willi Syndrome**

Pader-willi syndrome is postulated to result from a small deletion involving chromosome 15, usually occurring sporadically. Its prevalence is less than 1 of 10,000. Persons with the syndrome exhibit compulsive eating behavior and often obesity, mental retardation, hypogonadism, small stature, hypotonia, and small hands and feet. Children with the syndrome often have oppositional and defiant behavior.

**7. Cat's Cry (Cri-du-Chat) Syndrome**

Children with cat's cry syndrome lack part of chromosome 5. They are severely retarded and show many signs often associated with chromosomal aberrations, such as microcephaly, low-set ears, oblique palpebral fissures, hypertelorism, and micrognathia. The characteristics cat-like cry caused by laryngeal abnormalities that gave the syndrome its name gradually changes and disappears with increasing age.

**1.9 Special Education in India**

The origin of special education in India is seen from the era of Gurukula education, which adhered to fundamental principles of special education like determining

the strength and needs of each individual, individualizations of teaching targets, individualized teaching components and methods to match the skills and interests, preparing the people to meet the societal expectation of their prospective roles. The versatile gurus are illustrious administrators, valiant warriors and pious priest of students based teaching learning process on their socio cultural background and capabilities. Researcher here encounter many valued roles assumed by people with disability in our epics and scriptures where many need based support networks have been mobilized to foster a positive social status and dignity for them.

When compared with U.K. and U.S.A in India the awakening of scientific progress and provision legislation came later. The Lunacy Act of 1912 was the earlier laws which prevailed during the British rule in India. This law does not differentiate between Mental Retardation and Mental Illness.

**Growth of Special Education Centers:**

In 1940, the first special school was started at Bombay, in Maharashtra. In 1941, a group of parents joined hands and started a private special school for children with intellectual impairment, known as the "school for children in need of special care". The establishment of few residential centers followed this. In 1950's many day care centers were established in various parts of the country and the number of special schools increased.

With the establishment of National Institute of Mentally Handicapped (NIMH), the teacher training centers increased rapidly over a period of 20 years. Currently there are number of centers offering diploma in Special Education and number of universities offering B. Ed. & M.Ed. Degree in Special Education(MR).

**National Council for Education, Research and Training (NCERT):** In 1974, the Ministry of Welfare Government of India started the Project Integrated Education of the Disabled under the NCERT, which has been doing a pioneering job in constructing an integrated setup.

**National Policy on Education (1986)**

After Independence, one important turning point was the National Policy on Education. The Policy for the first time included a section on disabilities (Section 4.9). The point made in this section includes- Education of children with mild disabilities will be in regular schools. Children with severe disabilities will be in special schools with hostel facilities in district head quarters. Vocationalization of education will be initiated. Teachers training programme will be oriented to include education of disabled children. All voluntary efforts will be encouraged. Regarding the handicapped population, the National Policy on Education, 1986 states that the objective should be to integrated the physically and intellectually challenged with general community as equal partners, to prepare them for normal growth and to enable them to face life with courage and confidence.

**The National Institute for the Empowerment of Persons with Intellectual Disabilities (Divyangjan) Formerly National Institute for the Mentally Handicapped (NIMH):**

One of the relatively recent and most significant developments in the field of Intellectual impairment was the establishment of the National Institute for the Mentally Handicapped (NIMH) in Secunderabad, in 1984, as an autonomous body under Ministry of Social Justice and Empowerment. The institute serves as an apex body with specific emphasis on training and research in the field of Intellectual impairment. the objectives of NIMH are to develop service models, generate human resources, conduct research and

disseminate information on intellectual impairment. Under Human Resources Development NIMH conducts training in Special Education offering Degree and Diploma courses. The institute supports parents to form associations to stimulate growth of services in their hometown.

**Rehabilitation Council of India (RCI)**

The Rehabilitation Council of India (1992) is a statutory body under the Ministry of Social Justice and Empowerment to regulate and introduce uniformity in human resources development in country. Under this act, every rehabilitation practitioners including special educators are expected to register with RCI. The training institutes are inspected by RCI to ensure maintenance of standards. The RCI is a major move, by the Government of India for quality assurance in the education, training and management of persons with disabilities. The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act 1995 (PWD Act)

This Act was responsible for bringing about major changes in the programmes for persons with disabilities in India. The Act has 14 chapters covering seven disabilities namely Blindness, Low-vision, Leprosy-cured, Hearing Impaired, Loco-motor Disability, Intellectual impairment, Mental Illness. Through this Act, the quality of life of person with disabilities will improve as the literacy level, employment; social security, suitable assistive devices and barrier free environmental are focused.

**The National Trust for welfare of persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities, Act (1999)**

This Act has made provisions for appointment of guardians for those who have applied, and residential facilities by organizations who maintain minimum standards

prescribed by the trust in terms of space, staff, furniture, rehabilitation and medical facilities.

**Special Education Services:**

There are some accepted procedures and settings for training children's problems. An examination of special education in school system reveals an incremental continuum or ordered array of special education classes designed to serve the individual needs of children. Special Educator agrees that to ensure free and compulsory education to all children in the age range of 6 to 14 years. (Ref. 86$^{th}$ amendment of the constitution, clause 21A) It is expected that SSA will provide quality elementary education to all children by 2010. SSA aims at enrolling and retaining children, especially the most vulnerable and disadvantaged ones in primary schools. The teacher training programmes have content coverage on inclusive education and establishment of resource rooms in regular schools. Special Teacher trainees at graduate level are given skills and competencies for inclusive education. Parallel, special teachers at diploma level are also prepared to work in special schools to cater to children with severe intellectually impaired. There are also efforts to converts the existing special schools as resource centers for inclusive education through SSA.

Four aspects are unique about special education: Specialized educators, special curricular content, special instructional methods, and special instructional material; prior to the mainstreaming trend, these four services were almost always provided to children within the context of special classes or schools. These classes and schools were categorized along a continuum reflecting their degree of separation from the mainstream. Resource rooms, self-contained classes, special day schools, and residential treatment

centers reflect this continuum. Resource room provides a relatively least restrictive environment than residential centers. The goal is to place a child in the least restrictive environment relative to the severity of his or her handicapped condition. Therefore, even with the current trend toward mainstream programmes, many exceptional children will receive some of their education in one or more of the special environments outside regular classes.

**1.10 New Trends in Special Education**

Today, greater stress on pre-vocational and vocational trainings and on practical life experiences is given. Supportive services are expected from the family and by the community in special education. The need of zero-rejection i.e. every child should get some kind of education irrespective or his/her disability. More emphasis is given on early identification and intervention. Providing quality management by employing qualified educators and use of Educational Technology is among the major trends in Special Education.

**Vocational Training & Employment**

It was believed that the person with intellectual impairment were not productive as their adaptive abilities were not commensurate with a person of average Intelligence. It was also believed that they were not to be brought to the notice of the community, they should be kept within the four walls and all that they needed were food, water, clothing and shelter.

I low ever, increase in awareness, development in the service models and advancements in the technology coupled with the strength of the rehabilitation legislation, gradually the persons with intellectual impairment who used to be engaged in

sheltered workshops, are now engaged in open employment with either some or no support.

Products involving simple operations based on paper, cloth and similar kinds of items were used for this purpose. These jobs are basically repetitive in nature, where safety was not a matter of concern, as machines were not used for any commercial application to the operations of a vocational unit and profit was regarded as something uncharitable in such settings. There was no need to restructure the work site and little adaptations were necessary in the job activity.

**Right Based Approach**

Due to self-advocacy movement, legislative measures and increasing networks of services, people now realize the existence and the special needs of the persons with intellectual impairment. There is however, a need to treat them as a citizen at par with others, which is their constitutional right. The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full participation) Act, 1995 makes it obligatory on our part to provide them with equal opportunity protect their rights and ensure conditions for full participation in the community.

The National Trust for the welfare of the persons with intellectual impairment to have better life through various schemes in the country these provisions can be realized with active support and participation of the community, parents, governments and NGOs.

**Social Issues:**

Families of persons with intellectual impairment are found to be stressed, and seek respite. Many a time, their major concern centers on the care and safety of their child and the anxiety of ‘who will look after their child after the parent’s time?’ Though

National Trust aims to respond to this concern through providing guardianship, a lot more is yet to be done to streamline the process. Issues related to Rights of the person with intellectual impairment, sexuality and marriage remain unanswered. However, there are a few instances of legal support and justice to women with intellectual impairment who were sexually exploited. Government at Central and State level, provide a number of befits and concession for persons with disabilities including those with intellectual impairment such as travel concession in buses and trains with an escort, aids and appliances, maintenance allowance in some states, scholarship for education and tax deduction for parents/guardian.

**Community Based Rehabilitation (CBR):**

Success of CBR lies in community participation. As noted in the ILO, UNESCO, WHO joint position paper (1994), CBR is implemented through the combined efforts of disabled people themselves, their families and communities and appropriate health, educational and vocational and social services. with over 70% of Indian population living in rural areas with varying socio, economic, geographical, linguistic conditions, and the most viable way of reaching out is through empowering the community members to take the responsibility of their community.

In India, the CBR programmes are mainly supported by the government, NGOs, and International NGOs. Government of India has initiated District Disability Rehabilitation Centers (DDRCs) in collaboration with the state governments in over 120 districts in the country which aims to provide total rehabilitation to persons with disabilities in the community. A number of NGOs with funding from various sources have implemented CBR programmes in the country for all disabilities comprehensively

including intellectual impairment also with remarkable success though the programmes are fragmented. A number of CBR programmes in the country train and empower the women groups and also persons with disabilities to be the torch bearers of CBR programmes to ensure sustainability of the programme. There are individual reports/case studies on CBR which are project specific.

A noted by Wirz and Thomas (2002), CBR has not developed sufficient published literature about planning, implementation and evaluation in the same way as other areas of service delivery such as primary health care, community development or income generation. It is also to be noted that CBR for disabilities other than intellectual impairment involves arranging for surgery where appropriate, supply of aids and appliances and assistive devices, education, linkages to funding sources for economic rehabilitation and guiding the disabled person towards independent living. CBR for persons with intellectual impairment involves, training the persons, empowering the families and reduce stress and cope with the condition of the individual with intellectual impairment. In other words, training is the main focus.

The CBR worker should be competent in training ranging from early intervention, activities for daily living, referral to school, vocational training and parental support to reduce stress. This demands a different orientation of the CBR worker to be successful in empowering the person with intellectual impairment and families and community in general.

**Vocational Transition Models:**

Comprehensive transition from school to work planning and implementation require participation from all relevant school and adult service providers as well as

parents and individuals with intellectual impairment. Comprehensive transition planning requires restructuring and rethinking of professional roles, this is not enough. Participation of family members of the persons with intellectual impairment must also be encouraged. Transition process must include the provision of quality services for all handicapped youth as they prepare to leave school.

**Components of Transition Process:**

Transition Plans may begin with a parent, school or any agency responsible for providing post school vocational services, but regardless of who initiates the plan, it should be prepared three to five years before the student leaves the school.

There is a need in India to make a nation-wide priority for transition of persons with intellectual impairment from school to work. Therefore, under the project, "transition from school to work" NIMH transition model has been development based on past experiences. The role of the community and parents has been given more importance and the same is highlighted in this model.

**1.11 NIMH Transition Model**

It is roughly calculated that about 70 lakh constitutes adults out of 170 lakhs of persons with intellectual impairment in India. About 3000 adults are currently receiving vocational training at 16 vocational rehabilitation centers and 200 non-governmental organizations in India. Majority of them do not attain the status of an employee and continue to remain as trainees. As a result there is no considerable change in quality of life and behavioral pattern expected of an adult enjoying the status of an employee.

Transition planning currently rank as one of the top priorities of special education and vocational rehabilitation programmes across the country. A model of transition process has been developed to suit to Indian context.

The flow chart of the NIMH Transition Model shows four stages of vocational training and employment for persons with intellectual impairment.

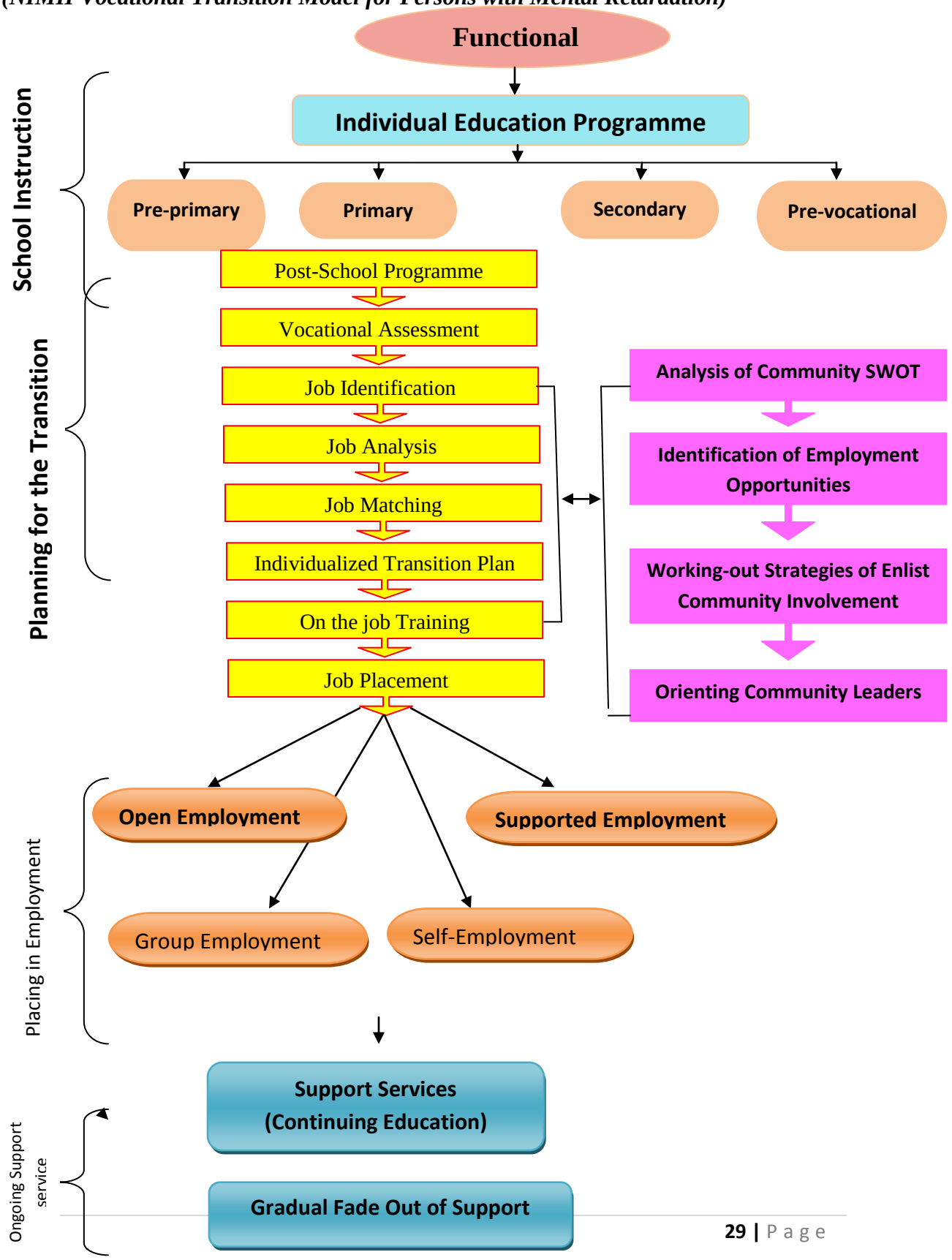
***STAGE- I***

System school instruction is the foundation of vocational training and employment. The special school curriculum includes the prevocational/occupational aspects. The special children are taught the daily living skills through the functional curriculum from pre-primary to pre-vocational level. The functional curriculum from pre-primary to pre -vocational level. The functional curriculum equips the children with special needs with necessary work readiness skills.

The main objectives of school based vocational curriculum are:

- It develops work habit, positive attitude, value towards work and daily living activities.
- It provides instructions and guidance for establishing and maintaining positive human relationship at home, school and at work.
- It develops the work skills among the students to be readily integrated physically, socially and economically in to the community.

***Figure No. 13 Stages of Vocational Rehabilitation/ Vocational Education Programme (NIMH Vocational Transition Model for Persons with Mental Retardation)***



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**Development of School Based Vocational Curriculum:**

Baine's ecology based curriculum (Ecology Inventory) helps to develop a school based vocational curriculum. An ecological inventory can be made by listing out all functional tasks performed by the non-handicapped persons in a particular environment. The steps to construct the curriculum:

- First of all identify the target group for whom curriculum is being designed.
- Select the target group functioning in the environment and sub-environment including the boundaries of the home, community, vocational and school environments and also predict the boundaries of the future environments.
- Identify the functional tasks that are performed by the non-handicapped and handicapped individuals through interviews, observations or by giving specially designed dairy to parents.
- Develop an inventory for particular handicapped individuals describing the special equipments, materials, conditions or adaptations and methods if necessary.

**School Based Vocational Skill Training:**

- Make the list of the daily activities an individual performs in a particular environment.
- Identify the pre-vocational and vocational activities associated with the selected daily living skills.
- Prepare the Individualized Training Programme for the student including the prevocational and vocational skills along with self help, motor, language, social, academics and recreational skills.
- Select the activities based on the age and ability level of the student.
- Encourage the parents and other family members of the non-handicapped persons to participate in training.
- Train in stimulated and natural settings.

***Stage-II:*** **This stage consists of**

**Community assessment:**

- Analysis of Community- SWOT.
- Identification of employment opportunities.
- Working out strategies to enlist jobs in the community.
- Job identification.

***Vocational Assessment:***

- Family Assessment.
- Generic Skills assessment.
- Specific Skills assessment.

***Individualized Transition Plan:***

- Job analysis.
- Job matching.
- On the job training.

This model insists in identifying the possible jobs when the student reaches the final stage of schooling in consultation with the parents. The transition plan is suggested to be a part

of individualized Education Plan. This avoids unnecessary confusion of parents about the post-school programmes of their children with intellectual impairment.

***Stage – III: Placing in Actual Job Sites:***

The Placing in Actual Job Sites and learners are prepared for a employment 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 settings and job sites. By the end of the training, as they leave the school, the students are placed in actual sites. It can be in one of the following types of employment. Open employment, Supported Employment, self or home based employment.

***Stage – IV: Support Services:***

The Support Services are the ongoing support services, which help the new employees to continue on-the-employment, are given importance in this model. Few ongoing support services are:

- To arrange for extensive vocational training.
- To observe them at their job sites.
- To provide additional remediation in academic subjects.
- To teach necessary skills needed to succeed in career.
- To liaison with the employer to bring in improvement in the performance.
- To lead them towards independent living and attain quality of life.
- To organize social warning exercises for better acceptability in the work community.

The transition model does not rely on prediction of the employability. It leads toward the beginning of the student's world of work from where they can aspire for better chances towards meaningful adult life with economic independence. The role of parents has been given prime importance in this transitional model.

**Transition is a Partnership Action:**

The transition process will not be successful unless school, community and families work together to ensure the delivery of appropriate services. Steps to establish partnership action are:

- Information exchange between schools and adult service agencies.
- The Staff development programme within the agencies and across the agencies to enable professionals to get to know each other and to promote a better working relationship.
- Joint planning for each student attending special education.

**Importance of Parent Involvement:**

The graduation of a child from school is milestone in any family. The role of the family as advocate and case manager for a young adult with intellectual impairment is critical during this phase. The service and resources here needs a long term vision. Only family is in a position to demand outcomes that enhances the individual's quality of life. They are the risk takers and financial planners. The family members specially the parents should begin a planning, which provides a vision of what his intellectually challenged son or daughter will be doing after 15 years and in future. The planning should include where the person will work, earn, recreate and live. Who will be the significant other in his or her life is a critical issue to be decided earlier.

An important factor for a smooth transition from school to work is the involvement of parents. They should be aware of how persons with intellectual impaired mild, moderate and severe, can be productive on a job through a supported work model

involving a proper employment match, the use of very systematic instruction and the ongoing support.

**Plans for development in special and vocational education:**

- The last two decades have seen significant progress in the areas of intellectual impaired in the country. However, considering the large population of the country, and the estimates of 58$^{th}$ Round of National Sample Survey Organization (NSSO) in 2002, which places 94/1, 00,000(0.094%) of the population to have intellectual impairment, the reach out with service provision is far from adequate.
- Though MSJ&E is the nodal Ministry for disability rehabilitation, Ministry of Health, Education, Labour and Rural development have major responsibilities, thus fragmenting the services. For comprehensive service provision, there needs to be convergence among the government departments.
- Awareness and education on Prevention and early detection and intervention should target the women in rural and urban areas so that the crucial early years of 'at risk' children get the right support at the right time. It should be one of the major focus areas in the agenda of empowering women.
- Parallel streams of special education (funded by MSJ&E) and inclusive education (funded by MHRD) hold the threat of substandard and poor quality education in both streams. Moreover, it will hamper the achievement of inclusion. There is a need for educational programmes monitored by one department of the government.
- Teacher preparation for Regular education programmes should include education of children with intellectual impairment to ensure inclusion.

- Evidence based best practices in CBR must be systematically documented and made available for those who need. Research and documentation in this area is the need of the hour.
- Employment and adult independent living should get a focus where by persons with intellectual impairment have safe, secure and dignified lives as contribution members of the society.
- Research, documentation and dissemination of information should be an ongoing process with wise use of technology.
- Empowering persons and families with intellectual impairment with focus on reduction of stress among the caregivers is a thrust area as the mothers are found to be stressed and many a time burnt out.

India is a signatory to a number of UN resolutions most of which have been responsible for development of various action plans and implementation in the country. To name few, the UN resolution 37/52 of 3rd December 1982 is a significant one, aiming to achieve full participation, equality and protection of rights of persons with disabilities. Asia Pacific Decade (1993-2002) extended for another decade (2003-2012) focusing on major policy areas gave a thrust to the programmes in the country. India is a signatory to Biwako Millennium Framework (2002) for action towards an inclusive, barrier-free and right based society for persons with disabilities. All of these have provided direction towards progress in the area of disabilities. It is hoped that through this conference a road map for viable programmes for persons with intellectual disabilities will be drawn and implemented, thus helping persons with intellectual disabilities lead a dignified life as proud citizens.

## 1.12 Rational of the Study

The programmed instructions through training have changed the life of the persons with disabilities. In the area of intellectual impairment, individualized instructions are essential for the vocational skill development and rehabilitation of intellectually impaired children. The child self-esteem is boosted. When he introduced with knowledge of vocational training (lamination skills) The suitable methods like demonstration, task analysis, drill with application of reinforcement in training has helped intellectually impaired persons. The researches have shows that the application of proper instructions methodology, equipments and techniques, reveals remarkable enhancement of skills in intellectually challenged persons. In this background the present problem is selected which includes programmed instructions for vocational training of the persons with intellectual impairment. The problem in other words can be framed as "Effect of Vocational Training on Behavioural Skills in Mild Intellectually Disabled Person."

## 1.13 Definition of the terms used in the study

### Mild Mental Retardation:

Mental retardation means a condition of arrested or incomplete development of mind of a person which is specially characterized by sub-normality of the intelligence. Where as per the categories of the mental retardation mild mental retardation refers to the persons having range of I.Q. is between 55to70.

**Vocational Rehabilitation:**

Vocational Rehabilitation mean that part of the continuous and coordinated process of rehabilitation, which involves the guidance, vocational training and selective placement designed to enable a disabled person to secure and retain suitable employment.

**About Lamination skills:**

In the investigation the term Lamination Skills is used. This is one of the vocational skills. This skill was chose by the investigator because this skill requires less mental ability and more expertise in gross-fine motor skills. These types of skills are beneficial for the persons in inclusion and integrate them as a contributory and productive member of the society.

**1.14 Need of the Study**

The researcher had seen during the study of review of related literature that it is very difficult to connect the mentally retarded person with the main stream and can make the independent. Researcher has taken an initiative in the form of experimental research to trained Mentally Retarded children through continuous training of Lamination Skill. These people also needs to connect with the community-based common activities which are based on employment in the context of Mentally Retarded person. It is a need and requirement of the society that every individual must take part in the growth and development of the country. Researcher thought that a therapeutic atmosphere conductive to emotional, socio-cultural, physical, and spiritual growth as well as occupational activities must be made available and give them opportunities to learn skills, gain confidence, self-respect and economic gainfulness. This Lamination Skill is very technically handled activity and can use under the supervision. Vocational Training and

employment is major area in the empowerment of persons with intellectual disabilities. It explores the relationships between aptitudes and generic skills, as well as work traits and aptitudes. There is a really a need of Vocational Training Programme for Mentally Retarded person and therefore this study is justify to work on the Vocational Training on Behavioural Skills In Mild Intellectually Disabled Person.

**1.15 Statement of the Problem**

On the basis of various reviews of literatures the following problem is formulated "**Effect of Vocational Training on Behavioural Skills in Mild Intellectually Disabled Person."** This study is to develop managing skills for lamination machine in the subject for the purpose of vocational training.

**1.16 Objectives of the study**

The objectives of this research are as follows:

1. To develop the gross motor skills of Mild Intellectually Disabled Person.
2. To development of fine motor skills of Mild Intellectually Disabled Person.
3. To develop adequate social Interaction skills.
4. To prepare the adolescent (Mild Intellectually Disabled Person) for Pre Vocational Skills i.e. to handle lamination machine effectively.
5. To develop the Lamination Skill perfectly.

**1.17 Hypothesis**

The following hypotheses are formulated for present investigation work:

1. There will be significant difference between the average score of pre and post test for gross-motor skills.
2. There will be significant difference between the average score of pre and post test for fine-motor skills.

3. There will be significant difference between the average score of pre and post test for social interaction skills.
4. There will be signification difference between the average score of pre and post test for pre-vocational skills.
5. There will be significant difference between the average score of pre and post test for skills for lamination machine.

**1.18 Delimitation**

The current study is delimited to one case of Mild Intellectually Disabled Person. The sample taken was a purposive sample to enhance the lamination through vocational training. The subject taken was a 28 year old mild intellectually challenged student of TEPSE & HEPSN Center (Teacher Preparation in Special Education & Higher Education for Persons with Special Needs) of Jai Narain Vyas University, Jodhpur.