

Special Education : An Introduction

All Children are not alike in relation to their mental and physical attributes. Some are highly gifted children while others are less talented; some have physical disabilities like blindness or low vision, deafness, speech disorders, lack of or non-functional limbs; some are retarded in intellectual development; some may be suffering from complications like epilepsy; some may be emotionally disturbed or are unable to make a proper adjustment in school, family or community; some may have learning disabilities.

Such children exhibit marked behavioural or communication disorders, or intellectual, physical or multiple disabilities. While all students require support to varying extents from teachers, classmates, family and the community at large in order to derive the fullest benefit from their school experience, these exceptional children have special needs that demand additional support beyond those ordinarily available in the normal school environment.

The term 'special education' refers not only to the process of teaching students with a learning disability, a development disability or a behavioural problem, but is also extended to cover children who display exceptional abilities and talents in one or more fields, who are also called gifted children.

Children who are different from the normal children are termed as exceptional children.

Definition of Exceptional Children

Crunchshank has given the definition 'An Exceptional child is who deviates physically, intellectually, emotionally and socially so marked from normal growth and development that he cannot be benefited from a regular classroom programme and needs special treatment in the school'.

Similarly Kirk said 'An exceptional child is one who deviates from normal or average child in mental, physical and social characteristics to such an extent

that he require a modification in school practices or special education services or supplementary instruction in order to develop to his maximum capacity.

The above definitions show that:

- Some children are different than others,
- These differences can be physical, psychological, or social,
- Their needs can not be met with normal curriculum of the school and
- Modifications in school's services are required to develop them fully.

Historical Evolution of Education of the Disabled

In pre-historic and primitive ages, the disabled were treated with contempt. In those times, when physical abilities counted most for day-to-day living, such persons were generally victims of lack of proper care and concern. Frampton and Gall (1955) observed that while there was no conclusive evidence, but abandonment of the disabled was a universal practice in the ancient world, it was claimed that handicapped individuals were not being given due attention.

It was, however, only in the second half of Eighteenth Century that the concepts of education for the disabled took their root. The liberal, socialistic ideas sweeping across the western hemisphere, France and the United States of America.

In France, the year 1785 witnessed the first school for the blind started by Valentine Huay in Paris. Father D'Lepse developed an early version of manual alphabet using finger spelling for the deaf.

In the United States of America, the first permanent school for the deaf was set up in 1817 at Hartford, Connecticut. The year 1829, in which Louis Braille developed the system of raised point alphabet using six dots arranged in two parallel rows of three dots each, was a landmark in the education of the blind.

In India, the first school for the deaf was set up at Bombay in 1883 and the first school for the blind at Amritsar in 1887. There are over 3,200 such special schools today run mostly by non-governmental organizations (NGOs).

The post Second World War years witnessed, under the influence and guidance of the United Nations, a rapid transformation in the humanity's approach towards the persons with disabilities and their education-from 'one of charity' to an 'issue in human rights'. The Universal Declaration of Human Rights (1948), The Convention (No.159).

International action concerning the disabled got accelerated during 1990s. In 1992, United Nations adopted a resolution declaring 3rd December of each year as International Day of Disabled Persons. The objective was to promote awareness and understanding of issues relating to disabled persons and to mobilize support for practical action. In 1993, the UN General Assembly adopted "Standard Rules on the Equalisation of Opportunities for Persons with Disabilities.

In the United Kingdom, the Disability Discrimination ACT of 1995 ensures that the persons with disabilities are treated without discrimination.

In Australia, the Disability Discrimination Act of 1992 aims to eliminate, as far as possible, discrimination against persons on the ground of disability in the areas of work, occupation, education, etc., and to ensure that persons with disabilities have the same rights to equality and other fundamental as the rest of the community. In the area of education, as in the United States of America and United Kingdom, the argument that all students have an equal right to experience a broad and enriching curriculum, while at the same time having their individual needs adequately met, found favour. South Australia was one of the first states to adopt a system of integrated education in normal schools in the early 1970s and is currently actively implementing inclusive practices in schools.

In India, the National Policy for Persons with Disabilities was adopted in 1993.

- Every child with disability shall have the right to free education till the age of 18.
- Appropriate transportation, removal of architectural barriers and restructuring of curriculum and modification in the examination system.
- Children with disabilities shall have the right to scholarships, uniforms, free books and learning material.
- Special schools for children with disabilities will be equipped with vocational training facilities.
- Non-formal education shall be promoted for children with disabilities.

The Integrated Education for Disabled Children (IEDC) Scheme, which has been in operation since the 1970s, provides for free education of children with disabilities in the age group 15-18 years.

Concepts of Impairment, Disability and Handicap

The term 'disability' does not have an easy, commonly acceptable and precise definition. As mentioned earlier, most human beings are not perfect in all respects, mentally and physically, the extent of imperfection varying widely. Moreover, the term 'disability' is not a universal concept. Its meaning varies according to cultural and attitudinal differences prevailing in different societies.

In simple terms, disability may be defined as a kind of impairment, physical or mental, that makes it difficult for a person to do what other people are able to do. It may be broadly understood as a "significant loss or want of abilities, temporary or permanent, due to disease, accident, genetic causes or any other reason" (Pandey and Advani). It hampers significantly an individual's capability to perform a particular task as per standards. Clearly, the extent of one's disability is a matter of degree.

World Health Organisation (WHO) distinguished between Impairment, Disability and Handicap as:

- (a) An 'Impairment' means any loss or abnormality of psychological, physiological or anatomical structure or function,
 - (b) A 'Disability', is a restriction or lack of (resulting from impairment) ability to perform an activity in a manner or within the range considered normal for a human being, and
 - (c) A 'Handicap' is a disadvantage for a given individual resulting from an impairment or disability that limits or prevents the fulfillment of a role that is considered normal (depending on the age, sex and social and cultural factors) for that individual.
- impairment may be corrected with appropriate aids and appliances and need not always lead to a disability or a handicap,
 - a disability is a consequence of impairment leading to functional limitation or activity restriction. It may arise as a direct consequence of impairment or as a response, often psychological, on the part of the individual to the impairment.



According to the International Labour Organisation (ILO):

“the term ‘disabled person’ means an individual whose prospects of securing, retaining and advancing in suitable employment are substantially reduced as a result of a duly recognized physical or mental impairment”. It may be observed that while the WHO definition is formulated basically from the point of view of health, the United Nations’s definition is formulated from the point of social ‘equality and that of ILO relates to equality in employment. (Convention No.159)

In this revised classification, the earlier terms of 'disability' and 'handicap' (used in the 1980 Classification) have been replaced by 'Activity Limitation' and 'Participation Restriction' respectively, while using the term 'disability' in an umbrella sense to cover all impairments, activity limitations and participation restrictions. The meaning attached to different terms used in the above terminology are shown below:

Body functions are the physiological functions of body systems (including psychological functions).

Types of Disabilities

Persons with disabilities are a heterogeneous group encompassing a variety of disabilities and varying degrees of disability in each. Disabilities can be broken down into a number of broad sub-categories, which include the following:

- Physical impairments affecting movement, such as muscular dystrophy, post polio syndrome, *spina befida* and cerebral palsy.
- Sensory impairments, such as visual or hearing impairments
- Cognitive impairment, such as Autism or Down Syndrome.
- Psychiatric conditions such as Depression and Schizophrenia

An alternative way of classifying the disabilities is

- Visual disability
- Hearing disability
- Loco motor disability
- Mental disability

Visual disability may be further divided into sub-categories

- (a) total blindness, and
- (b) low vision.

Similarly, mental disability includes

- (a) mental retardation, and
- (b) mental illness

Degree of Disability

If the degree of disability is not considered, almost every human being may have to be considered disabled to some extent or other. In general terms, disabilities can be broadly classified as mild, moderate, severe and profound, depending on the degree of the disability.

- | | | |
|-----|----------------|------------------------------|
| (a) | Mild | Less than 40% disability |
| (b) | Moderate | 40% and above but below 75% |
| (c) | Severe | 75% and above but below 100% |
| (d) | Profound/Total | 100% |

Concepts of General, Special, Integrated and Inclusive Education

The term 'general education' refers to the system of education (including the institutions, curricula, teachers and teaching and evaluation methods) adopted in the normal school system catering to the educational needs of normal children. In the case of education of children with exceptional needs, there are various models that have been tried.

The first, and historically the oldest and the one still prevailing, is that of 'special education' by segregating the children with exceptional needs in a totally different learning environment in special educational institutions, like the schools for the blind, for the deaf, for the mentally retarded, etc. The curricula adopted and the teachers and the teaching methods followed in these special institutions are specific to the disability concerned and are different from those in the normal schools. This approach has been considered unacceptable by social activists on the grounds that

- (a) the long-term exclusion of the children with disabilities from the mainstream is socially and educationally harmful to both groups,
- (b) segregation in the childhood eventually leads to segregation in the adult life violating human rights,

- (c) the breaking of relationships, which is an inevitable result of segregation, is the most serious form of social deprivation that further damages the children's ability to learn, and
- (d) 'special needs' is not another term of the needs of the disabled but signify needs which are currently unmet in the mainstream education.

An improvement over the segregated education is the system of integrated education, which gained popularity in the early years of the second half of twentieth century. This system brought the disabled children into the normal school system, but still viewed the disabled child as the problem. This model considers that the disabled child has special problems and needs special teachers, environment, curriculum and equipment, and is different from the other children. All over the world, there is now a growing trend to move away from the special schools model to an 'inclusive education' model for the education of the disabled children.

Inclusive Education system views that if a child is not learning, the problem lies in the education system and not in the disabled child. The difficulties arise because of rigid methods and curriculum, inaccessible environment, untrained teachers and poor quality of teaching, lack of proper attitudes on the part of the teachers, lack of support from public agencies, etc. Thus, the focus shifts from making the disabled child responsible for his problems to making the education system responsible. The Salamanca Statement adopted at the World Conference on Special Needs Education: Access and Quality in 1994 states that

"Regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire educational system"

Objectives of Special Education

- To make disabled children be useful citizens of the country
- To prepare them to adjust with the environment.
- To identify their talents and provide opportunities for their development.
- To help them in accepting their disability and develop confidence and positive self-esteem to handle it
- To provide education in a way so that they could earn their livelihood.
- To help parents in dealing with their disabled child
- To help their mainstreaming in the society.

Need for special Education

It has been recognized that problems and needs of the disabled children are different from their counter parts; the educational planning for them should be to meet their special needs and problems.

- Children with various categories and types of disabilities like blinds, deaf and dumb require special attention and assistance of specially trained teachers to make them learn. Hence special schools or resources in the normal schools are needed.
- Proper learning may not take place in normal classes. There is a need to have special classes in terms of remedial classes and provisions of resource centers, itinerant teacher to develop disabled children to their full capacities.
- Special education provides disabled full opportunities in making them self-dependent.
- Disabled children may require special support to develop socially desirable behaviours and meet their emotional needs. Special education provides such support
- Disabled children may require help in developing good relations with others and interacting with peer groups. This need can be met with differently planned educational services.
- Special education helps in generating awareness about various disabilities, needs of disabled and helps in their mainstreaming.

Children with Mental Retardation

The American Association on Mental Retardation defines Mental Retardation as referring to “substantial limitations in present functioning. It is characterized by significantly sub average intellectual functioning, existing concurrently with related limitation in two or more of the following applicable adaptive skill areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work”. (1992)

Page (1976) defined the concept, as “Mental deficiency is a condition of sub-normal mental development, present at birth or early childhood and characterized mainly by limited intelligence and social inadequacy”.

Fox and Gregory say “Mental retardation refers to a chronic condition present from birth or early childhood which is characterized by both impaired intellectual functioning as measured by standardized tests and impaired adaptation to the daily demands of the individual’s social environment”.

Dunn (1970) defined mentally retarded persons as “who are so deficient in general intellectual ability that their inability to care for themselves, coupled with their disruptive behaviour.

American Association of Mental Deficiency (1973) stated mental retardation as:

“significantly sub average general intellectual functioning, concurrently with deficit in adaptive behaviour and manifested during the development period”.

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

The above definitions show that:

1. Level of functioning gets limited in mentally retarded children.
2. Mentally retarded children have lower levels of intelligence.
3. It affects one or more areas of functioning.
4. It affects social behaviours
5. Mental Retardation manifests itself in early childhood
6. Mental Retardation is measurable
7. Adoption to various skills is difficult in mentally retarded children.

Categories of mental retardation according to intelligence level have been specified as under:

	Categories	IQ Levels
1.	Profound mental retardation	below 20
2.	Severe mental retardation	20-34
3.	Moderate mental retardation	35-49
4.	Mild mental retardation	50-69
5.	Borderline deficiency	70-79

How to Identify Mentally Retarded

Some indications of mentally retarded children are as follows:

1. Cannot remember things
2. Start walking and speaking later than the normal children
3. Show excessive aggression
4. Find it difficult to solve mathematical problems
5. Incoherent speech
6. Make sounds that do not convey any thing
7. Not conscious of their behaviour
8. Learning is very slow
9. Show tantrums, are impulsive
10. Dependent on others for doing routine tasks

11. Show difficulty in finding similarities and discrimination in things. Also lack analytical ability.
12. Academic achievement is poor
13. Some mentally retarded children may have physical deformities. They are unable to perform certain physical acts such as functions involving motor coordination.
14. Children with severe mental retardation have very limited or not mobility, they are unable to pick up things. Their language skills are poor and they find it difficult to maintain personal hygiene or doing routine daily works such as drinking, eating etc.

Causes of Mental Retardation

They are several hereditary and socio-economic causes that lead to mental retardation:

1. Genetic Factors

Mental retardation tends to run in families Coleman, 1976. There are genetic chromosomal defects that are associated with mental retardation. These defects may cause the retardation from moderate to severe degrees. Down's syndrome is also because of chromosomal defects.

2. Infections and Pollutants

In the fetus of the pregnant mother has virus diseases, it may lead to retardation in the off spring. Toxic and other pollutants may also cause brain damage in the child. Typhoid vaccine, various drugs taken by the mother during pregnancy, alcoholism, etc., all may cause damage in the brain of the child. Incompatibility in the blood types between mother and fetus i.e Rh or ABO System incompatibility should also be diagnosed as it also relates to mental retardation in the child.

3. Injuries

Kennedy, 1963 and Rothchild, 1967 reviewed research studies and found that pre-mature births are linked with high incidence of neurological problems and

mental retardation is also associated with it. Accidents during the delivery, lack of oxygen to the child and other complications during pregnancy may damage the brain of the child.

4. Radiation

Too much exposure to x-rays can be harmful. It has been found that radiation damages sex cells and other body tissues. It affects badly on fertilized ovum leading to defective off springs. Parents may be exposed to radioactive material which can also harm the offspring.

5. Malnutrition

Protein deficiencies and lack of proper nutrition can result in physical and mental damage of the child. Specifically lack of protein diet for the mother and child has been found to be directly related to lowered intelligence.

6. Socio-Cultural deprivation

Earlier it was believed that mental retardation occurs due to genetic or brain problems. Of recent it has come to light that lack of stimulation of the brain due to socio cultural deprivation also results in mental retardation. This deprivation is due to poverty, illiteracy and lack of opportunities of interaction with others. The environment that does not provide adequate intellectual stimulation can cause mental retardation. Tarjan and Eisenberg, 1972 described this phenomenon in the following manner:

“They are raised in homes with absent fathers and with physically or emotionally unavailable mothers. During infancy they are not exposed to the same quality and quantity of tactile and kinesthetic stimulations as other children. Often they are left unattended in a crib or on the floor of the dwelling. Although there are noises, odors, and colors in the environment, the stimuli are not as organized as those found in middle-class and upper-class environments. For example, the number of words they hear is limited, with sentences brief and most commands carrying a negative connotation”.

A report by the American Psychological Association (1970) reported that “Mental retardation is primarily a psycho-social and psycho-educational problem – a deficit in adaptation to the demands and expectations of society evidenced by the individual’s relative difficulty in learning, problem solving, adapting to new situations, and abstract thinking”.

Generally socio-cultural deprivation results in mild forms of mental retardation.

Preventive Measures

- (i) Precaution during Pregnancy
- (ii) Marriages and Birth of the Child at Right Age
- (iii) Regular Health Checkups
- (iv) Delivery by Trained Person
- (v) Discouraging Marriages among close relatives

Disorders relating to Mental Retardation

1. Down’s Syndrome
2. Phenylketonuria (PKU)
3. Cretinism
4. No.18 Trisomy Syndrome
5. Niemann-Pick’s Disease
6. Turner’s Syndrome

Helping the Mentally Retarded

The teacher has to organize community awareness programmes so that others may know about the status of the child and could deal with him with empathetic attitude.

Teaching for mentally retarded has to be extremely gentle. Such children take a long time in learning an activity. Specific and continued training with patience may be helpful.

The parents and other family members have to play an important role in the development of a retarded child.

The Syllabus has to be adapted according to the needs of the child in the school. For example, generally, the retarded child is unable to do mathematical problems. Extra tutorials may also be arranged in the school so that the needs of the children could be met.

Educating the Mentally Retarded

1. Motor Development
2. Language Development
3. Daily Activities
4. Behaviour Management
5. Dealing with Difficulties
6. Teaching of Subjects

Children with Hearing and Speech Impairment

“Deafness means a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplifications, that adversely affects a child’s educational performance” (Individuals with Disabilities Education Act, 1990, of United State of America).

Moores (1987) differentiates between ‘deafness and’ hard of hearing’ – “A deaf person is one whose hearing is disabled to an extent (usually 70 db or greater) that precludes the understanding of speech through the ear alone, without or with the use of a hearing aid. A hard of hearing person is one whose hearing is disabled to an extent (usually 35 to 69 db) that makes difficult but does not preclude, the understanding of speech through the ear alone, without or with a hearing aid”.

A person with normal hearing can hear the sounds ranging from a very low frequency of 60 Hz to about 16,000 Hz.

Sl. No.	Category	Level of hearing loss (decibels)	Needs
1.	Mild	20-30 db	Hearing equipment
2.	Marginal	30-40 db	Hearing and speech therapy
3.	Moderate	40-60 db	Adaptation of instruction with better visual instructions
4.	Severe	60-75 db	Use of special methods
5.	Profound	75 and above	Intensive Special methods for Teaching.

Causes of Hearing Disability

The causes of hearing disability can be summarized in the following chart.

Genetic causes are also termed as 'endogenous' causes while causes relating to injury etc. are known as 'extrogenous'.

Early Detection

Early detection of the problem is necessary. When a child's problems are ignored as, for example, when a child is not performing well in the class, it is routinely thought that he is not concentrating well, or is not attentive, or has no interest in studies or is retarded.

Assessment

Screening tests

Watch test

Whisper test

Tuning fork tests

Sound in instrument test

The voice tests

Identification of Hearing Impaired (Characteristics)

- High pitched tone
- Distorted sounds
- Excessive nasality
- Lack of comprehension
- Same pattern of voice
- Problems in making sentences or understating concepts
- Abnormal emotional behaviour
- Aloofness and withdrawal symptoms, specially when the child is not disabled at birth.
- May not be able to follow directions
- Stammering
- Tilts head consistently to get better sound
- Avoids talking to other children
- Speaks louder than required
- Watches the speaker to understand what he is saying
- Blank facial expressions
- Deformity of the ear or discharge from the ear
- Ear aches, headaches or dizziness
- Noise in the ear or head.

Educating the Hearing Disabled

Special educational plans are needed to educate the hearing disabled child according to the degree of deafness and speech disability.

- (i) Reception : Most of the information to the child should be given to brain using other senses than vision.
- (ii) Symbols : Words, signs, gestures are used in receiving the information.
- (iii) Encoding: Symbols are arranged in such a way that these convey the meaning
- (iv) Transmission : Encoded information is transmitted to others.

(v) Decoding: Sent message is decoded to understand the information.

While teaching the hearing disabled in the normal class, there may be a need for the interpreter. Teacher should face the student while talking. Small sentences should be spoken with clarity. Students should sit in the front benches so that they could see the teacher speaking. While writing on the chalk-board, the teacher should not speak.

Visually impaired children may be of various types. They can be totally blind, partially sighted or colour blind. In the category of totally blind are those children who are not able to see anything, while partially sighted children require special arrangements for vision. Colour-blind children are those who cannot differentiate various colours.

According to the 10th Revision of the WHO, International Standard Classification of Diseases, Injuries and Causes of Death, low vision is defined as visual acuity of less than 6/18, but equal to or better than 3/60, or corresponding visual field loss to less than 20 degrees, in the better eye with best possible correction.

Causes of Blindness

- Cataracts
- Glaucoma
- Age-related Macular Degeneration
- Trachoma
- Corneal
- Diabetic Retinopathy
- Anophthalmia
- Aniridia

Visual impairments also occur due to development disorders if proper care is not taken at initial stages. Sometimes, some other general health related problems such as typhoid, measles etc. may result in visual impairment. Injuries in the eyes, burns, accidents may also cause visual inadequacies.

How to Identify a Visually Impaired Child

1. Having watery eyes
2. Rubbing eyes frequently
3. Reddening of eyes frequently

4. Covering of eye and tilting the head forward
5. Holding objects and books close to the eyes
6. Asking help from others when taking notes from the blackboard
7. Blinking frequently – Squinting eyelids together
8. Complaining about headache and closes eyes frequently
9. Bumping into people or objects
10. Skipping words or lines while reading or tries to guess words
11. Having poor eye-hand coordination
12. Moving head forward and backward while looking at distant objects
13. Watching T.V. from a very close distance
14. Difficulty in reading small print
15. Complaint of tiredness after reading one Para or page
16. Sensitivity to light

Tools Helpful for Visually Impaired

Stick for Mobility

Guide dogs

Reading and Magnification Equipments

Computers

Braille Keyboard

Speaqualizer

Braille Printer

Braille Translator

Dealing with Children with Visual Impairment

Role of the School and the Teachers

1. Children with visual impairment may be seated in the front rows so that they can read the books and writing on the blackboard without any difficulty or pressure.
2. Books with bold letters may be provided to such children.
3. Radio and T.V. broadcasts may be arranged
4. Efforts may be made to procure cassettes in different curricular areas.
State Institutes of Education or State Councils of Educational Research

and Training or District Institutes of Education and Training or Centres or Institutes of Educational Technology may be approached for this purpose.

5. Blind children need Braille script books.
6. School doctor may be consulted from time to time.
7. Cooperation of the Parents should be sought in the follow-up work.
8. Use verbal communication along with the writings or indicating towards on object, picture or sign.
9. See that the visually impaired child is adjusted with his vision aid/equipment.
10. The visually impaired children should be made familiar in the classroom, the furniture in the class and other equipments placed in the classroom. They should also be made familiar of the school premises. A school map indicating the various places may be given to the blind students in Braille language or a replica may be prepared for them so that they could be familiar with the school environment and move freely.
11. Their chairs and desks should not be changed frequently. The places of other equipments should also be fixed.
12. The sitting arrangement should be such that they can enter easily and go out without much hindrance.

Education for the Visually Impaired

A number of models have been tried to educate the visually impaired. For partially sighted children a special class was tried in the normal school where the teacher could handled all the partially sighted children.

Usually for blind children, going to school implies admission to a residential school for the blind (Braille classes). Of late some attempts have been made to integrate them with the normal children by admitting them to normal schools but the coverage of blind population of the students in this respect is not significant.

Teaching Plan

1. Orientation

2. Use of Resource-room
3. Maintenance of Equipment and Material
4. Safety Training
5. Life Skill Training
6. Social Skills
7. Preventive Measures Skills
8. Vocational Training
9. Education through Exploration
10. Teaching of Subjects

Kurt Jonson defined the concept of Orthopaedic handicapped “in modern rehabilitation, a physical disability is considered to be an impairment of an anatomical nature, which may, or may not constitute a handicap... A handicap is combined effect of physical, mental and environmental obstacles caused by the disability”.

Samuel and Romaine stated – “The child may be considered handicapped, if his physical condition prevents full participation in childhood activities of a social, recreational, educational and vocational nature”.

It can be observed from the above definitions that orthopaedic handicapped children have such a physical condition due to which they are not able to function normally in various activities, which other children can do. This may create further problems in seeking employment, having social acceptability or difficulty in getting along with others.

Causes

Orthopaedic impairments are caused by a variety of causes. Some anomalies like clubfoot are congenital. Diseases such as bone T.B. or Poliomyelitis cause yet another type of orthopaedic handicaps. Fractures or burns cause contractures.

Orthopaedic impairment may or may not be accompanied by mental retardation.

Effects of Orthopaedic Impairments

The disadvantage suffered by children with orthopaedic impairments is their inability to mix freely and independently in their peer group. A number of social and emotional behaviours are formed while young children interact with each other.

Characteristics

Orthopaedically handicapped show the following characteristics:

- Inaccurate co-ordination of the limbs, which may affect mobility, posture & manual dexterity. This is the most visible and significant feature.
- Difficulty in perception and concentration where the impairment is neurological in character.
- Difficulty in verbal communication in case of muscular dystrophy and facial burns
- Limited ability in facial expressions in cases of cerebral palsy.
- Deformity in the child can be observed. This could be in arms, hands, legs, neck, waist etc.
- May suffer with pain in joints
- Amputated limbs

Role of Teachers

The classroom and class work needs to be organized in a manner that these are accessible to the handicapped students. While the limitations should be recognized, expectations should be held high for all students.

How to Deal with Orthopaedic Children

The key to success in respect of orthopaedically challenged students is the same as for people with other kinds of disabilities. They have to be trained to be independent to the extent possible and the possibilities should not be underestimated. The learning environment has to be supportive and socialization has to be encouraged.

Writing Aids

Students with orthopaedic impairments may need instruments like special pencil holders or slated boards that support their arms. While computers are helpful, keyboards may need modifications to suit the special needs of orthopaedically handicapped students.

Learning Disabilities

Children with learning disabilities are known as 'slow-learners'. Children with learning difficulty are to be identified. Generally these children have normal or sometimes even above average intelligence. Golick (1970) has classified learning disabilities in the following categories.

1. Poor body awareness
2. Poor ability to combine vision and movement
3. Visual inefficiency
4. Poor listening ability
5. Poor integration of information from sensory channels
6. Poor sense of rhythm
7. Problems with concepts
8. Problems in learning
9. Poor general knowledge

Kirk, S.A. States that "The term learning disability is not meant to be used for children with minor or temporary difficulties in learning but with a severe discrepancy between abilities and achievements in educational performance and such severe discrepancies described as learning difficulties with significant learning problems that cannot be explained by mental retardation, sensory impairment, emotional disturbance or lack of opportunity to learn".

How to Identify Learning Disabled

- School performance not up to mark
- Cannot learn alphabets or remember names or numbers.
- Can read but cannot write
- Poor hand writing

- Can write but not good in verbal communication
- Poor in solving mathematical problems.
- Difficulty in differentiating visual and or auditory perceptions
- Poor memory
- Lack of perception of body image
- Lack of eye-hand coordination.
- Difficulty in learning the concepts, symbols, abstract material etc.
- Good performance on intelligence tests but poor academic achievement.
- Lack of attention and social adjustment.
- Hyper-activity

Learning Disabilities and Attention Deficit Hyper-activity Disorder (ADHD)

A Common disorder in the children with learning disabilities is prevalence of Attention –Deficit-Hyperactivity. Such children lack attention, are impulsive and hyper-active. They also have lower levels of self-esteem a negative self-concept, mood instability and temper tantrums. Due to lack ‘of attention they are slow learners and show poor academic performance.

Such children need their energies to be channelised in desired activities. They should be made to work in smaller groups. Such children in school should be given seats in the front and be given interesting activities to do. Such children get easily bored with a continued activity of the same nature, so variety should be introduced. Since they cannot concentrate for long, small tasks should be given. Instructions should be followed by visuals or activities that do not require continuous sitting.

Educating the Learning Disabled

Special techniques are to be used to educate the learning disabled depending upon their specific problems. In case a student is having the problems in mathematical ability, it should not be ignored and adaptation of the curriculum as well as various types of methods of teaching are to be used.

(a) What a Teacher should do

This reinforcement can be through verbal or non-verbal communication. Verbal communication may include like you are doing good 'or' it was excellent. The non-verbal communication can be a pat on the back of the child, a smile or other body gestures. Some signaling system should be established which a child could understand, to be used when the child is not behaving in a socially desirable manner. This does not mean that the teacher should punish the child. It can be just showing a signal like touching the child with hand or touching of your own finger or any other symbolic gesture, which the child can follow to stop the behaviour.

In many cases learning-disabled children forget to bring the desired material like pencil or a scale or an eraser to the school. These children should not be scolded. The child should be given one set that can be kept in the school.

Social skills can be taught through T.V. Shows, dramas, role-play, etc. To get the attention of all the children playfulness on the part of the teacher is very encouraging.

What a Teacher should not do

The teacher should not force the student to participate in every activity if he is not willing. The learning disabled should not be compared with other normal children.

Types of Learning Difficulties and Symptoms

	Area of difficulty	Symptoms	Examples
Dyslexia	Processing Language	Reading, writing and spelling written or	Letters and words may be pronounced backwards
Syscalculia	Maths Skills	Computation, remembering	Difficulty learning to count

		maths facts, concepts of time and money	by 2s, 3s or 4s
Dysgraphia	Written expression	Handwriting spelling, composition	Illegible handwriting, difficulty organizing ideas
Dyspraxia	Fine motor skills	Co-ordination, manual dexterity	Trouble with scissors, buttons, drawing

INFORMATION PROCESSING DISORDERS

Auditory Processing Disorder	Interpreting auditory information	Language development, reading	Difficulty anticipating how a speaker will end a sentence
Visual Processing Disorder	Interpreting visual information	Reading, writing and maths and 'n'	Difficulty distinguishing letters like 'h'
Attention deficit Hyperactivity Disorder	Concentration and focus	Over-activity, distractibility and impulsivity	Can't still, loses interest quickly

Identification and Assessment

Identification and assessment of children with special needs is essential for their mainstreaming and rehabilitation. While identification is observation of disability in the child, assessment is to estimate the degree of disability and the residual capability of the child due to the specific disability. Identification of the disability is the first step and once the disability is identified, the child can be taken to the appropriate place for assessment. For example, if a child is not able to perform well in the school, his problem in learning, when detected, can be measured through various instruments.

Need for Early identification

Disability has medical, educational, vocations and socio-psychological dimensions. The medical dimension of disability refers to the physical limitations in handling the life situations while the vocational dimension relates to the limitation of the individual in functioning in the world of work. The social model defines disability as a defect that hinders normal interaction of a person with the society.

Early identification and assessment of the disability is, thus, essential. It can help the child in following manner:

- With the early identification of the disability, child can get timely medical help.
- The residual functioning capabilities of the child can be measured and accordingly educational-vocational support can be provided.
- Early identification leads to the early acceptance of the disability on the part of the child, family and community.
- Training can be provided to the child to lead to normal life along with his disability.
- Preventive measures can be adopted to curtail the severity of the problem.
- One disability may lead to other. If properly detected adequate measures can be taken to prevent its multiplication.

Process and Basis of Identification and Assessment

The process of identification starts soon after the birth – whether the child can see, can hear, can move his limbs, whether he is reacting to gestures, his responses to various stimuli, etc. When the handicap is not severe as, for example, when the child can see but vision is not very clear, or responses of the child are not sharp or a hearing impaired child does not react to the sounds the way he should do, it is somewhat difficult to identify the handicap. The basis of identification is the child's behaviour. If the child's behaviour is different from that of other students of the class, it can serve as a useful indicator for identification of the problem.

Observation

The child has to be watched regularly and his behaviour observed carefully.

Some tests available for Formal Assessment are:

General Ability Measurement Tests

- Battelle Developmental Inventory
- Bayley Scales of Infant Development
- Stanford-Binet Intelligence Scale
- Wechsler Preschool and Primary Scale of Intelligence-Revised (WPPSI-R)
- McCarthy Scales of Children's Abilities
- Transdisciplinary Play-Based Assessment

Language / Communication Measurement

- Sequenced Inventory for Communication Development-Revised (SICD)
- Preschool Language scale – 3 (PLS-3).
- Clinical Evaluation of Language Fundamental-Preschool:
- Peabody Picture Vocabulary Test (PPVT-R)
- Test of Early Language Development (TELD)

Measurement for Social / emotional behaviour

- Child Behavior Checklist (CBCL)

Self-help / Adaptive Behaviour Measurement

- Battelle Developmental Inventory: The Riverside Publishing Company. This test is designed for children birth through age eight. It tests in several different developmental domains such as self-help, motor, cognition, language, and social skills.
- Vineland Adaptive Behavior Scale (VABS): The Vineland tests infants to children ages 18 and 11 months. The purpose of the test is to assess social competence. The areas of assessment include : communication, daily living, socialization, and motor skills.
- Hawaii Early Learning Profile (HELP) This test is for children ages birth through age three. The HELP is a criterion referenced tests which assesses

children in the developmental areas of self-help, motor, cognition, language, speech, and social development.

Role of Teachers in Identification and Assessment

The teachers can play an important role in identification and assessment of a disabled child. It is detailed below:

- In case parents at home do not observe a disability, teacher can observe the behaviour of the child and find out why a child is behaving in a certain manner. If a low vision child sitting at the back of the classroom is not able to see the writing on the board and comes to the front often, the teacher can observe this behaviour. Similarly observations can be made for other disabilities such as learning disabilities, hard of hearing etc.
- Teacher can refer the child to the doctor, therapist or to other referral services.
- Teaching methodology and strategy has to be designed according to the disability of the child.
- Teacher's role is to make the disabled child familiar with the school environment.
- Teacher should make the child familiar about the resources available for him in the school and outside.
- Teachers can provide help in using and maintenance of appliances / equipments used by handicapped children.
- Information about the disabilities of the children is necessary to facilitate their integration in the class.
- Teacher can interact with parents in the assessment process of disability and their acceptance.
- After identification and assessment of disability children can be referred to referral services if required.

Teaching Learning Strategies and Social Educational Provisions

Education is a Fundamental Right under the Constitution. The Sarva Shiksha Abhiyan started by the government has a goal of educating each and every child without any kind of discrimination. Therefore, children with special needs also

have a right to education irrespective of the type of their disability, its degree, category etc. The schools have to provide a congenial environment for all types of children including children with special needs. A 'Zero Rejection' policy has been accepted under Sarva Shiksha Abhiyan.

(A) Curriculum Adjustment and Adaptation

1. Identification of Needs of the Children

The first step for curriculum adjustment is to identify the needs of the children with various disabilities. According to the levels of abilities and residuals capacities, curriculum has to be modified and adapted.

2. Holistic Approach to Curriculum

Education in general focuses upon the overall development of children but curriculum has to be very specific in case of disabled children according to their specific needs of development and adjustments.

3. Curriculum and Group Interactions

A school curriculum is not restricted to teach a topic only. The curriculum should provide ample opportunities for group interaction and participation.

4. Curriculum and Functional Orientation

Curriculum should be related to day-to-day lives of the children. It is more important in case of disabled children. Children would be able to identify better with the things they are familiar with in their day-to-day living. Teaching through these objects / material is easier than quoting the examples of unknown things and materials.

These settings are family, school, employment, the community and the society.

General Objectives → Specific Objectives → Skills to be Developed → Tasks to be Identified

5. Adapting Published Material

1. The total curriculum has to be divided into various topics
2. Each topic must be divided into various concepts
3. Each concept should be divided into skills to be developed in the child.
4. Tasks are to be identified according to the skills to be developed. It must be remembered that one skill at a time must be developed.

Special needs of the disabled children

S. No.	Types of needs	Curriculum adaptation
1.	Academic needs	Reading, writing, learning of specific subjects like language, mathematics
2.	Social needs	Interaction with others, understanding of disability, adjustment with the environment
3.	Communication needs	Speech, written communication, learning grammar and usage of sentence, how to develop communication skills, use of equipment, training in lip reading, etc.
4.	Mobility needs	To be able to move by self, familiarity with environment structure to facilitate mobility, training in obstacles identification.
5.	Living needs	Training in living independently and doing the daily routine tasks like bathing, wearing clothes, eating, managing home
6.	Vocational needs	Vocational needs of disabled children to be identified according to residual capacities. Vocational training in schools with linkages of children with vocational training centers. Training for interviews, guidance for skills while meeting with employers.
7.	Safety needs	Use of apparatus, equipments and their maintenance, precautions for injuries
8.	Leisure needs	Identification of specific interests, aptitudes and abilities to be developed as leisure time activity

like music, painting, crafts, playing, dramas, games, etc.

9. Psychological needs Understand and accept the child with his/her disability by self and others.

Components of Curriculum Adaptation

Curriculum adaptation has following components :

1. What to teach : The matter
2. How to teach – the process and methodology

Teaching Learning Strategies and Social Educational Provisions

3. Establishing Learning environment
4. Evaluation of teaching

Teaching Strategies

Thomas Becker and Armstrong said that “a teacher can modify and control the behaviour of her students by controlling her under response”. In other words, a teacher can play a vital role in teaching of the disabled, if she can devise the proper strategies of teaching.

An Appropriate Teaching Strategy

- (a) Choice of Instructional Material
- (b) Management in the Class

Integrated Education

Children with disability suffer due to misconception and unfavourable attitudes of the society towards them. In many cases, societies are reluctant to accept the child with a disability and even parents in some cases try to hide that they had a disabled child in the house.

A number of alternatives for disabled children have been tried and modified to make the disabled a part of the society.

Initiatives have also been taken for the education of children with disabilities. Initially, special schools and residential schools were established to educate such children. More than 3,000 such schools for various categories of disabled children have been established across the country.

Kautman, Cottlieb, Agard and Kukic have defined mainstreaming in these terms: “mainstreaming refers to the temporal, instructional and social integration of eligible exceptional children with normal peers based on on-going, individually determinant educational planning and programming process and requires classification of responsibility among regular and special education, administrative, instructional and supportive personnel.” The definition shows that mainstreaming of disabled involves integration of these children with other normal children; educational planning and programming i.e. the support system to be developed for disabled; and classification of responsibilities to deal with disabilities is required such as provision of counseling, a resource teacher, etc.,

Here integrated education does not mean that special schools would be closed. But it envisages that when the disabled children would be educated along with the normal children many problems that emerge with the special schools may be tackled and the accessibility of education to disabled children would increase. In case of acute disabilities, children may need special schools. Ministry of Human Resource Development introduced integrated education in India through Integrated Education of Disabled Children (IEDC) Scheme in collaboration with UNICEF in 1987 where Project Integrated Education for the disabled was started. The approach was based on area project instead of an individual school approach. All the disabled children in a cluster were identified and put in all the schools of that area.

Inclusive Education

The concept of inclusive education is a very new concept, which originated from the phenomenon of respect for an inherent dignity of all human beings. Under the inherent dignity of all human beings concept, the active participation of all the people in the society irrespective of their characteristics is emphasized.

Inclusive education refers to “To all learners, young people – with or without disabilities being able to learn together in ordinary pre-school provisions, schools and community educational setting with appropriate network of support services”. In this, it is believed that if a child is not able to learn it is not due to the disability of the child but due to the school system. It is that responsibility of the school to manage teaching in such a way that the needs of all the children are met.

The Central Advisory Board of Education reconstituted in 2004 in its report stated that implementation of an inclusive system of education for all assumes greater significance of systematic reforms specially in the context of disability since in the core of their exclusive and marginalisation is inadequacy of the basic education system and processes that have failed to guarantee equal access and full participation. In order to make inclusive education a reality, in addition to the provision of aids and appliances, a flexible, broad and balanced curriculum that can meet the needs of all children is a necessity.

- Enforcing without exception the neighborhood school policy
- Removing physical barriers
- Reviewing barriers created by admission procedures (screening, identification, parental interaction, selection and evaluation including private schools)
- Building capacity of teachers to function in an inclusive setting
- Making the curriculum flexible and appropriate to accommodate the diversity of school children including those with disability in both cognitive and non-cognitive areas.
- Making support services available in the form of technology (inclusive ICT), teaching-learning materials and specialists.
- Involving parents, family, and community at all stages of education.
- Gear all teacher education programmes (both pre-service and in-service to develop pedagogical skills required in inclusive classroom
- Mobilise special schools as resource centers for providing support to inclusive schools.

The concept of inclusive education has been introduced in District Primary Education Programme (DPEP), which recognized that there is a need for community mobilization and early detection of disability, training for teachers, mapping of resources, support services, provision of educational aids and appliances and removal of architectural barriers.

Organisation of Classes According to the Needs of Disabled

Resource Room Facility

The Trained Teacher (itinerant)

Partial Integration

Structural Modifications

Teacher-pupil ratio

Vocational training

Counselling

Interaction

Teachers for disabled

Constitutional Obligations Universalisation of Elementary Education

In the Constitution of India, as it was originally enacted, right to education was not a Fundamental Right of the Citizens. However, The Directive Principles of State Policy (Article 45, Part IV of the Constitution) laid down that “The State shall endeavor to provide within a period of ten years from the commencement of this Constitution for free and compulsory education for all children until they complete the age of fourteen years”. This Constitutional goal, which was to be achieved by 1960, is still a distant goal.

In 2002, free and compulsory education of all children in the age group of six to fourteen years was made a Fundamental Right (under Article 21A) through the 86th Amendment to the Constitution.

Steps are currently being taken to enact a Right to Education Act to give a practical shape to guaranteeing this Fundamental Right.

Five Year Plans and the Disabled

In the earliest phases of planned development in India, the approach towards the disabled population was one of providing effective welfare services.

Five Five Year Plan

The First Plan (1951-56) observed that “a certain number of welfare agencies are already working in this field, but little information about their resources and their ability to deal with the problem is at present available.

Second Five Year Plan

The Second Five Year Plan (1956-61) was more focused on the education and training of the disabled.

For the rehabilitation of persons suffering from incurable diseases provision has been made in the programmes of the Ministry of Health.

Third Five Year Plan

The Third Plan (1961-66) took notice of the progress achieved till then in developing special services and facilities for physically and mentally handicapped persons, specially those who are blind, deaf and dumb and those who are orthopaedically handicapped and mentally deficient. It remarked that,

- (a) teaching handicapped persons in their homes;
- (b) providing work in the homes or in the neighbourhood for those not able to move;
- (c) providing recreational facilities for the handicapped, the aged and the infirm; and
- (d) providing assistance by way of special aids.

Fourth Five Year Plan

The Fourth Plan (1967-74) recognized that in providing social services to the handicapped and the destitute, the government could only “attempt limited tasks

to try and ensure optimal benefits from both State and voluntary effort. Such tasks will include various types of assistance – monetary, technical and administrative – to voluntary organizations. Government can undertake demonstration of pilot projects. They can legislate where necessary, regulate and administer welfare organizations and coordinate the relevant activities of education, health and social welfare”.

Fifth Five Year Plan

The Fifth Plan continued with programmes such as improvement of existing national institutes for the blind, the deaf, the mentally retarded and the orthopaedically handicapped, research on aids and appliances for the handicapped, scholarships for the disabled, sheltered workshops and assistance to voluntary agencies in the field of welfare and development of the disabled.

Sixth Five Year Plan

The Sixth Plan called for a comprehensive primary health care, distribution of Vitamin ‘A’ to prevent blindness among children and intensive educational programme for the prevention of accidents on a high priority.

The Sixth Plan aimed at creation of opportunities for integrated education, vocational training and economic rehabilitation in order to integrate the disabled with the main stream of socio-economic life. It envisaged that the scheme of integrated education (which aims at placing the disabled children in ordinary schools with the help of special teachers, aids and resources, trained teachers, special equipment and books, resource and assessment facility) would be revised and expanded so that the varying needs of different types of handicapped children might be met effectively.

Seventh Five Year Plan

The Seventh Plan (1985-90) continued with the approach of the earlier plan and stressed that education and training played a vital role in the social-economic rehabilitation of the physically handicapped. The Plan, accordingly proposed that the handicapped persons would be encouraged to pursue education and

vocational training through scholarships and other promotional aids in order to draw them closer to the normal stream of life.

The Seventh Plan envisaged educational incentives like scholarships/stipends, book-grants, uniforms, etc. to improve the enrolment ratio of physically handicapped children at the primary and middle levels.

Eighth Five Year Plan

The specific programmes in the Eighth Plan in the area of prevention of disabilities included continuation and strengthening of the universal immunization, streamlining of the nutrition services and safety measures to prevent occupational and other accidents through better enforcement of the laws and general of awareness in the families and community.

Ninth Five Year Plan

The Ninth Five Year Plan (1997-2002) marked another paradigm shift in approach to the issue of the disabled, from one of welfare to one of rights. It emphasized the process of empowerment of the disabled and called for

- * Creation of an enabling environment for persons with disabilities to exercise their rights for equal opportunities and full participation will be put into action through joint efforts of both Government and Non-Government Organisations.

- * Strengthening / expansion of special schools and vocational training programmes with barrier-free environment.

The Ninth Plan reaffirms the earlier commitment of making disabled active, self-reliant and productive contributors to the national economy.

Tenth Five Year Plan

The Tenth Plan (2002-07) found the strategy of 'Empowering the Disabled' adopted during the Ninth Plan to be effective in achieving the goals set, and has, therefore, chosen to continue with the same approach.

Policies for Education of Persons with Disabilities

For quite some years after Independence, policies in relation to persons with disabilities focused on their economic rehabilitation.

National Policy on Education (NPE), 1986

The National Policy on Education, 1986, which provided for a comprehensive policy framework for the development of education in India.

In so far as the children with disabilities are concerned, NPE stated that the objective of education should be to integrate the physically and mentally disabled with the general community as equal partners and to prepare them to face life with courage and confidence.

The specific measures suggested are:

- (i) wherever feasible, the education of children with major handicaps, and other mild handicaps, will be common with that of others.
- (ii) Special schools with hostels will be provided, as far as possible, at district headquarters, for the severely handicapped children;
- (iii) Adequate arrangements will be made to give vocational training to the disabled;
- (iv) Teacher's training programmes will be reoriented, in particular for teachers of primary classes, to deal with the special difficulties of the handicapped children; and
- (v) Voluntary effort for the education of the disabled, will be encouraged in every possible manner.

National Policy for Persons with Disabilities, 2006

In keeping with the international trends, there has been a change in the perception about the disabled in recent years. There is a growing realization that the quality of lives of persons with disabilities can be raised by providing them opportunities and appropriate facilities.

The focus of the National Policy is on:

- (a) preventions of disabilities and
- (b) rehabilitation measures.

The rehabilitation measures include

- (i) Physical rehabilitation (through early detection, counseling and medical interventions, provision of aids and appliances and development of rehabilitation personnel),
- (ii) Educational rehabilitation (through promotion of education and development of vocational skills) and
- (iii) Economic rehabilitation (through provision of opportunities and for employment in government, wage employment in private sector and self-employment).

The National Policy emphasizes the need for mainstreaming of the persons with disabilities in the general education system through Inclusive Education. The role of the existing programmes of Sarva Shiksha Abhiyan (SSA) and the Integrated Education for Disabled Children (IEDC) Scheme are highlighted by the National Policy.

The objective is to ensure that every child with disability has access to appropriate pre-school, primary and secondary level education by 2020.

The Persons with Disabilities Act, 1995 (PWD Act)

The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, as its title implies, is a legislation to ensure equal opportunities for people with disabilities and their full participation in national development.

Regarding education of persons with disabilities, the Act has the following specific provisions:

- Every child with disability shall have the right to free education until the age of 18 years in integrated schools or special schools;
- Appropriate transportation, removal of architectural barriers and restructuring of curriculum and modifications in the examination system shall be ensured for the benefit of children with disabilities.

Integrated Education

Concept and Need

The traditional approach to education of children with exceptional needs is that of 'special education' by segregating the children with exceptional needs in a totally different learning environment in special educational institutions, like the schools for the blind, for the deaf, for the mentally retarded, etc. The curricula adopted and the teachers and the teaching methods followed in these special institutions are specific to the disability concerned and are different from those in the normal schools.

An alternative to the segregated education is the system of integrated education, which gained popularity from the early years of the second half of twentieth century. This system seeks to integrate the disabled children with the normal school system.

Scheme of Integrated Education for Disabled Children (IEDC)

The Scheme of Integrated Education for Disabled Children (IEDC) was launched in December 1974 with the following objectives:

- To provide educational opportunities for the disabled children in general schools and to facilitate their retention in the school system.
- To facilitate integration of children in special schools into general schools once they acquire the communication and daily living skills at the functional level.

Resource Rooms

The IEDC Scheme envisages that properly equipped Resource Rooms be set up for a cluster of schools implementing the Scheme.

Sarva Shiksha Abhiyan (SSA)

Sarva Shiksha Abhiyan (SSA) is a comprehensive and integrated programme of Government of India to attain Universal Elementary Education (UEE) in the country.

- All children complete five years of primary schooling by 2007
- All children complete eight years of elementary schooling by 2010
- To increase the quality of education of all elementary school students so that learning will be improved and transition rates from primary education to upper primary education will increase.
- To bridge the existing gender and social gaps. Bridge at primary stage by 2007 and at elementary education level by 2010 so that enrolment of girls will be near parity with boys, enrolment of children of Scheduled Castes and Scheduled Tribes will bear near parity with that of other groups; and enrolment of children with disability will increase.
- Universal retention in schools by 2010

Its key objective is Universalization of Elementary Education (UEE). It implies access enrolment and retention of all children in 6-14 years of age in the educational system.

SSA envisages to ensure that every child with special needs, irrespective of the kind, category and degree of disability, is provided education in the appropriate environment. It adopts a 'zero rejection' policy so that no child is left out of the education system.

Under SSA, a continuum of educational options, learning tools and aids, mobility assistance, support services are made available to students with disabilities. This includes education through an open learning system and open schools, alternative schooling, distance learning special schools, home based education where necessary; itinerant teacher model, remedial teaching, part - time classes, community based rehabilitation and vocational education.

Under SSA, there is a provision of financial assistance of Rs.1200/- per child to institution that are helping the inclusion of disabled children, as per specific proposal, per year.

Special Institutions for the Disabled

Rehabilitation Council of India

Rehabilitation Council of India (RCI) was initially established by the Government of India as a registered body in 1986 for standardization and monitoring of training programmes for personnel in the field of rehabilitation of the disabled all over the country.

Facilities for the Education of the Disabled

CBSE Relaxation for Disabled Children

The main facilities extended by the Central Board of Secondary Education to the disabled candidates (Dyslexic, Blind, Spastic and Candidate with Visual Impairment) are:

1. The persons with disabilities (Dyslexic, Blind, Spastic and Candidate with Visual Impairment) have the option of studying one compulsory language as against two.

2. Disabled candidates are allowed additional one hour (60 minutes) for each paper of external examination.
3. Exemption from examination in the Third Language is given to the disabled.
4. Physiotherapeutic exercises are considered as equivalent to Physical and Health Education course of the Board.
5. Separate question papers in Science & Mathematics at Secondary (Class X) level have been provided for blind students.

Scheme of the University Grants Commission

The UGC had started the scheme of assistance to universities / colleges to facilitate Teacher Preparation in Special Education (TEPSE) and Higher Education for Persons with Special Needs (Differently - abled Persons) (HEPSN) during the Ninth Five - Year Plan, keeping in view the need to provide special education programmes as well as infrastructure to differently - abled persons.

Special Employment Exchange for Physically Handicapped

Introduction

The country has witnessed a phenomenal expansion of educational opportunities in the post - Independence period. The disabled children, however, have not benefited substantially from this growth in educational facilities.

Aims and objective

The Scheme of Integrated Education for the Disabled Children (IEDC) aims to provide educational opportunities for the disabled children in common schools, to facilitate their retention in the school system.

Scope

It is proposed to provide educational facilities under this scheme for children with disabilities who can be integrated in general schools. While rehabilitation assistance will be made available to all children with disabilities, student benefits (para 10) will be extended on the recommendation by the Assessment Team.

1.1.2. Historical Context

A Pre - Independence Overview of Education for the Handicapped

Historically, organised attempts to educate blind children were made in India when Christian missionaries established schools. The first school for blind children was established by an English missionary known as Annie Sharp in Amritsar in 1887.

1.13. Post - Independence Scenario

1.1.3.1 The Kothari Commission, 1964 - 1966

In 1964, the Kothair Commission was the first education commission which brought up the issue of Children with special needs in the plan of Action

(Gupta, 1984; Jangira, 1995) and again gave strong recommendation for including children with special needs into ordinary schools.

The education of handicapped children has to be organized not merely on humanitarian grounds of utility. Proper education generally enables a handicapped child to overcome largely his or her handicap and make him a useful citizen. Social justice also demands it. It must be remembered that the Constitutional directive on compulsory education includes handicapped children as well.

There is much in the field that we could learn from the educationally advanced countries which in recent years have developed new methods and techniques, based on advances in science and medicine. On an overall view of the problem however, we feel that experimentation with integrated programmes is urgently required and every attempt should be made to bring in as many children in integrated programmes.

The Commission further recommended

The Ministry of Education should allocate the necessary funds and NCERT should establish a cell for the study of handicapped children. The principal function of the cell would be to keep in touch with the research that is being done in the country and abroad and to prepare materials for teachers.

Therefore, while reviewing Government of India documents created during the post - Independence period, one finds that services for children with special needs seem to have followed the pattern of segregation, although statements of intent show otherwise. The rhetoric remains on paper and not in practice.

Examining what has been the practice during the 53 years since Independence, three policies of the Government of India have been analyzed.

- a) Policy of Assistance to Voluntary Organisations, Ministry of Welfare
- b) Policy of Integration, Ministry of Human Resource Development

c) Policy of Integrated Child Development Scheme, Ministry of Human Resource Development.

1.1.4. Programmes of Inclusive Education in India

1.1.4.1 Centrally Sponsored Scheme of Integrated Education for Disabled Children (IEDC) 1982 - 83)

i) Accordingly, with the objective of providing educational opportunities for disabled children, in common schools so as to facilitate their retention in the school system, the Department of Education has been implementing a centrally sponsored scheme of Integrated Education for Disabled Children (IEDC) since 1982-83. The scope of the scheme includes preschool training for disabled children and counseling for parents.

ii) The scheme is implemented through education departments of the State governments / Union territories, autonomous organisation of statutory and voluntary organisations. Presently, 24 states / union territories are implementing the scheme and over 50,000 disabled children in 12,292 schools have been covered so far.

1.1.4.2. National Policy on Education, 1986 and Its Programme of Action

The National Policy on Education (NPE), 1986 brought the education of this group of children under the Equal Education Opportunity Provision. It envisaged:

- education of children with locomotor disability and other mild disabilities in general schools;
- special schools for severely disabled children at district headquarters;
- reorientation of teacher training programmes by including a compulsory Special Education component in pre-service training of general teachers;
- Provision of vocational training for the disabled; and
- involvement of NGOs in this work.

1.1.4.3 The Persons with Disability Act (PDA) 1995

What is significant, however, is that a new direction is noticeable. Global initiatives mentioned earlier have influenced India. A new legislation was enacted in 1994 known as The Persons with Disability Act which states that disabled children should, as far as possible, be educated in integrated settings.

This proposed Act was introduced in pursuance of India being a signatory to ESCAP, which had adopted a proclamation on the full participation and equality of people with disabilities in the Asian and Pacific Region.

The PDA is a landmark legislation in the disability movement in the country. It presents a vision for people with disabilities, people who have for centuries been victims of prejudice, neglect, ostracism, treated as lesser beings and consigned to the bottom heap of humanity.

The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation), Act, 1995 has also come into force recently. It has identified seven categories of disability, both physical and mental. Chapter 5 of the Act pertains to Education. It enjoins upon the government –

- Every child with disability shall have the right to free education till the age of 18 years in integrated or special school set up.
- Appropriate transportation, removal of architectural barrier and restructuring of examination system shall be ensured for the benefit of children with disabilities.
- Children with disabilities shall have the right to free books, scholarships, uniform and other learning material.

- Special Schools for children with disabilities shall be equipped with vocational training facilities.
- Non-formal education shall be promoted for children with disabilities.
- Teacher training institutions shall be established to develop requisite power.

1.1.4.4 National Trust Act 1999

National Trust Act is meant for the Welfare of Persons with Autism CP, MR Multiple Disabilities. The objectives of the Trust Act are as under:

- To enable and empower persons with disabilities to live as independently and as fully as possible within and as close to the community to which they belong.
- To strengthen facilities to provide support to persons with disability to live within their own families.
- To extend support to registered organizations to provide need-based services during the period of crises in the family of person with disability.

1.1.5 Sarva Shiksha Abhiyan

Sarva Shiksha Abhiyan (SSA) is the national flagship programme launched in 2001-02 for achieving the goal of Universalisation of Elementary Education (UEE) through a time-bound approach in partnership with States and local bodies. It is also an attempt to provide an opportunity for improving human capabilities of all children (6-12 years age), through provision of community-owned quality education in a mission mode.

The following activities are undertaken:

- Identification of children with special needs through surveys.
- Assessment of each identified child.

- Provision of aids and appliances to those requiring assistive devices.
- Sensitization of teachers through specific training modules to the needs of CWSN.
- Parental training and community mobilization.
- Removal of architectural barriers in schools and providing an enabling environment for CWSN.
- Special emphasis for girls with disabilities.

SSA's Policy on Inclusion : “Education is the fundamental right of all children” and “Universalisation of Education” is meaningful only when all the children in the age group of 6-14 are in school and get education.

1.1.5.1 Objectives

- To provide access to schooling to all children with special needs.
- To achieve 100% enrolment and rehabilitation of children with special needs.
- To provide necessary supporting services to the children with special needs in the context of education.
- To reduce the gaps between the normal children and children with special needs in the context of education.
- To involve parents and community in the process of educating the children with special needs.
- To empower the teachers and parents to manage the children with special needs (CWSN) in the process of education.
- Establishment of resource persons and resource centers at block level to handle the children with special needs.

1.1.5.3 Programmes Implemented

1. **Inclusive education resource teachers:**

- Continued in-service training should be provided to prepare Integrated Education Resource Teachers (IERT) in each block for the educational and supportive services of the children with special needs. These teachers are the regular teachers who have put in experience in the regular classroom transaction and with 90 days of training in the distance mode.

1.1.6 District Primary Education Programme (DPEP)

A programme called the District Primary Education Programme (DPEP) was launched in 1995 by the government, supported by the World Bank, with the aim of working out curricula, teacher training, etc., for early childhood care, including disabled children. The most significant change proposed is that the district primary schools in the state would be held responsible for all children, including disabled children. India was aiming to reach 'Education for All' status by the year 2000. The Primary objectives of the DPEP are to support Government of India's efforts towards universalisation of elementary education; address the issue of dropouts, out-of school children and early marriages by starting primary schools in every village; provide extensive teacher training; address gender issues and create programmes for the empowerment of women. Convergence of different government agencies and NGOs at various levels would be promoted actively; teachers would receive regular in-service training through the District Institute of Education and Training (SCERT); case studies and statistics showing enrolment, retention, dropouts and gender-wise specifications would be compiled annually; alternate schooling would be promoted with a focus on flexible curriculum, informal evaluation criteria, flexible timings and other issues of adult illiterate persons; and, following world trends, integrated or inclusive education of children with mild to moderate disabilities would be promoted.

1.1.7.1 Integrated Education for Disabled Children (IEDC)

In 1974 the Government of India launched the scheme under the Ministry of Social Justice and Empowerment, which was later shifted to Ministry of Human Resource Development. The scheme intends to provide educational opportunities to students with disabilities in regular schools and facilitate their

retention through resource support in the schools. Children with disabilities in the age group of 15-18 years are provided free education under the following heads:

- I. A disabled child may be given the following kinds of facilities at the rates prevalent in the State / UT concerned. The facilities should, as far as possible, be given in kind. In case similar incentives are not being offered by the state government / UT Administration under any other scheme, the following rates could be adopted.

1.2 International Policy and Practice in the Education of Disabled Children

1.2.1 UN Convention on the Rights of the Child 1989

The 1989 UN Convention on the Rights of the Child has been ratified by 177 countries worldwide. There are several general Articles in the Convention which lead up to Article 23, which is specifically about disabled children.

The Convention includes statements such as: all rights shall apply to all children, without discrimination on any ground including disability. In all actions the child's best interests shall be a primary consideration and they should develop to the maximum extent possible. The Convention also states the right of the child to express an opinion and to have that opinion taken into account.

1.2.2 UN Standard Rules

The UN Standard Rules on the Equalisation of Opportunities for Persons with Disabilities (1993), set an international standard for policy making and action covering disabled people.

1. buildings to be accessible,
2. interpreter and other support services,
3. parents and organisations of disabled people to be involved in the education process,

4. a flexible curriculum plus additions and adaptations for disabled pupils, and
5. ongoing teacher training.

1.2.3 UNESCO Salamanca Statement (1994)

In 1994, UNESCO, the UN's Education Agency, published the Salamanca Statement, a declaration on the education of disabled children, which called for inclusion to be the norm. Representatives of 92 governments and 25 international organisations agreed on it.

UNESCO's statement is unequivocal in asking the international community to endorse the approach of inclusive schooling: 'We call upon all Governments, and urge them to adopt as a matter of law or policy the principle of inclusive education, enrolling all children in regular schools, unless there are compelling reasons for doing otherwise.'

Disabled children 'must have access to regular schools' and it adds.

The Salamanca Statement asks all governments to undertake a variety of actions, India included. It wants governments

- to give the highest policy and budgetary priority to improve education so all children can be included, regardless of individual difference or difficulties;
- to develop demonstration projects and encourage exchanges with countries which have inclusive schools;
- to ensure organisations of disabled people, along with parents and community bodies, are involved in planning and decision making; and
- to make early identification and intervention strategies a priority as well as vocational aspects of inclusive education and to ensure that both initial

and in-service teacher training address the provision of inclusive education.

The Salamanca Statement calls for action from:

- UNESCO itself,
- UNICEF
- the UN Development Programme, and
- the World Bank.

1.2.4.1 The Individual with Disabilities Education Act

In 1975, the United States Congress Passed Public Law 94-142, originally called the Education for all Handicapped Children Act. Shortly after its passage, P.L.94-142 was called “block buster legislation” (Goodman 1976) and hailed as the law that will probably become known as having the greatest impact on education in history.

Inclusive Education

Researches in Psychology and Education have made great strides in developing educational provisions that effectively adapt to students’ differences and help in providing education for all. Although there are certain factors like students’ aptitude, instructions and environment that have been identified as influential in learning, helping schools to create effective and practical learning environments that meet students’ needs has been a continuing challenge in the history of school improvement efforts and quality education. One premise of this approach is that students learn in different ways and at varying speed, but a major task of the schools is to provide educational experiences that include and accommodate these differences in order to optimize each student’s education irrespective of his /her social or economic status.

To say that there are benefits and advantages associated with strong efforts to serve all students seems to be a statement of the obvious; yet it is important to remember why the concept is so pertinent for today’s schools. The

following list attempts to detail some of the general advantages commonly associated with a learning - for - all mission. Emphasis on serving all students will:

- Teach students that all people are equally valued members of the school and society.
- Create an atmosphere of trust and respect as students learn that differences enrich learning and that all have valuable contributions to make.
- Empower students who have previously had unsuccessful school experiences or experienced school failure.
- Broaden students' views of others, helping them to be more accepting
- Help students to work in varied setting with many types of people.
- Ensure that all students have the opportunity to become contributing members of society.
- Empower educators to expand their skills and techniques beyond that which is routine or comfortable.
- Encourage parents and the community to become partners with the school in establishing and reinforcing the mission.

Provide Structure and Support for Collaboration

Collaboration needs to occur during the initial planning stages, during implementation, between home and school, between all members of the student's individual planning team, between general and special educators during the course of the school day, between teachers and administrators, and between students. It is especially important that time be built into teachers' schedules to allow for collaboration. The administrators can be of great assistance in making this possible.

Make Adaptations

One of the challenges of inclusion is adapting the general education curriculum (and environment) to meet the needs of students with disabilities. Adaptations are any adjustments or modifications in the environment, instruction or materials used for learning that enhances the person's performance or allows at least partial participation in an activity. For many students with cognitive disabilities, the mainstream curriculum may be too demanding or fast-paced. For students with physical disabilities, many academic tasks pose unrealistic physical demands. To allow their participation, adaptations must be made because a student should not be excluded from an activity due to the fact that he / she can perform only a portion of the required skills. These modifications may mean adapting skill sequences, providing personal assistance, adapting rules, and adapting the physical environments.

There are many times when an individual learner or group of learners can benefit from slight to detailed adaptations or modifications to the everyday learning structure. Many times, teachers make these changes without even realizing it. Sometimes, the changes require the intricate cooperation of a team of teachers, administrator, specialists, and parents. There also will be times when certain adaptations are not feasible for particular situations. In such cases, schools must do what is possible and reasonable, including the exploration of

alternatives, to serve student needs. The following list details different instructional variables that can be manipulated to suit individual learner needs.

- **Learning Objective:** Certain students may be helped by having personalized learning objectives that differ slightly from the whole - class learning objectives. For example, a specific lesson objective for the whole class may be mastery of an entire list of vocabulary words, but for certain students the lesson objective might be to master the same list with a little extra time.
- **Learning Environment:** Classroom lighting, noise, level, and visual stimulation can all be modified to suit learner needs. Portions of the classroom can be designed to afford students more or less or any of these variables as determined by student needs.
- **Learning assistance:** Students may require varying levels of instructional and /or physical assistance beyond what is typically provided by the classroom teacher. Such assistance can be given by peers, other school staff, or volunteers.
- **Instructional grouping arrangement:** Teachers can take advantage of a number of different grouping arrangements and tailor them to specific situations. Ideas for arrangements include: whole - class instruction, teacher - directed small group instruction, cooperative learning groups, student - directed small group instruction, and independent seatwork.
- **Teaching Format:** Lessons can be delivered using a variety of techniques, such as lecture and demonstration, whole - class discussion, games, simulations, role - playing, presentations, and experiential - learning activities.

- **Instructional Materials:** Instructional materials can be altered to be more manipulative, concrete, tangible, or simplified. They should be matched to students' learning and comprehension levels.
- **Classroom Rules:** Some situations may require that certain classroom rules be modified in order to allow all students to successfully participate in a lesson or activity. For example, a rule might state that no talking is permitted during test taking, but a language - minority student might need an interpreter to successfully complete the test.

Regardless of what adaptations may be used and what brought them about, a team approach and shared responsibility are crucial. Team members can include the special and regular education teacher, the principal, parents, tutors, school psychologists, and other parties who are relevant to a child's education.