

Read To Lead



Creating an Inclusive School

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THAKUR PUBLISHERS
ROHTAK

CREATING AN INCLUSIVE SCHOOL

B.Ed, Second Year

According to the new syllabus of
'Chaudhary Ranbir Singh University, Jind'

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Contents

Unit 1: Concept of Exceptionality and Children with Special Needs

1.1.	Understanding Diversities/ Differences	15
1.1.1.	Diversity	15
1.1.2.	Individual Differences	16
1.2.	Children with Special Needs (Exceptional Children)	17
1.2.1.	Concept of Disability	17
1.2.2.	Meaning and Definitions of Children with Special Needs	18
1.2.3.	Characteristics of Children with Special Needs	19
1.2.4.	Categorisation of Children with Special Needs	19
1.3.	Visual Impairment	20
1.3.1.	Meaning of Visual Impairment	20
1.3.2.	Types of Visual Impairment	20
1.3.3.	Causes of Visual Impairment	21
1.3.4.	Symptoms of Visually Impaired Children	22
1.3.5.	Education for Visually Impaired Children	22
1.3.6.	Teaching Students with Visually Impairments	22
1.4.	Hearing Impairment	23
1.4.1.	Meaning of Hearing Impairment	23
1.4.2.	Characteristics of Hearing Impaired Children	23
1.4.3.	Types of Hearing Impairment	24
1.4.4.	Degrees of Hearing Loss	25
1.4.5.	Causes of Hearing Impairment	25
1.4.6.	Educational Challenges of Hearing Impairment	26
1.4.7.	Educational Implications of Hearing Impairment	26
1.4.8.	Educational Services for Children with Hearing Impairment	26
1.5.	Mental Retardation/ Disability	27
1.5.1.	Meaning of Mental Retardation	27
1.5.2.	Characteristics of Mentally Retarded Children	28
1.5.3.	Types of Mental Retardation	28
1.5.4.	Causes of Mentally Retarded Children	29
1.5.5.	Education of Mentally Retarded Children	29
1.6.	Locomotor Impairment	30
1.6.1.	Meaning of Locomotor Impairment	30
1.6.2.	Types of Locomotor Impairment	30
1.6.3.	Characteristics of Locomotor Impaired Children	30
1.6.4.	Functional Limitations of Locomotor Impaired Children	31
1.6.5.	Causes of Locomotor Impairment	31
1.6.6.	Prevention of Locomotor Impairment	32
1.6.7.	Education of Locomotor Impaired Children	33
1.6.8.	National Health Programme for Prevention of Locomotor Impairment	33

1.7.	Neurological Disorders	34
1.7.1.	Meaning of Neurological Disorders	34
1.7.2.	Types of Neurological Disorders	34
1.7.3.	Causes of Neurological Disorder	34
1.8.	<u>Learning Disability</u>	35
1.8.1.	<u>Learning Disability</u>	35
1.8.2.	<u>Characteristics of Learning Disabled Children</u>	36
1.8.3.	<u>Types of Learning Disabilities</u>	36
1.8.4.	<u>Functional Limitations of Learning Disabled Children</u>	37
1.8.5.	<u>Causes of Learning Disabilities</u>	37
1.8.6.	Educational Provision for Children with Educational Disability and Learning Disability	38
1.9.	Multiple Disability	38
1.9.1.	Meaning of Multiple Disabilities	38
1.9.2.	Characteristics of Multiple Disabilities	39
1.9.3.	Types/Forms of Multiple Disabilities	41
1.9.4.	Impact on Learning of Multiple Disabilities	41
1.9.5.	Teaching Strategies for Multiple Disabilities	42
1.10.	<u>Inclusive Education</u>	43
1.10.1.	<u>Concept of Inclusive Education</u>	43
1.10.2.	<u>Meaning and Definition of Inclusive Education</u>	44
1.10.3.	<u>Characteristics of Inclusive Education</u>	45
1.10.4.	<u>Objectives of Inclusive Education</u>	46
1.10.5.	<u>Need of Inclusive Education</u>	46
1.10.6.	<u>Importance of Inclusive Education</u>	47
1.10.7.	Basic Elements of Inclusive Education	48
1.10.8.	Assumptions of Inclusive Education	48
1.10.9.	Process of Inclusive Education	48
1.10.10.	Difference between Traditional Approach and Inclusive Approach	50
1.10.11.	Difference between Special Education, Integrated Education and Inclusive Education	51
1.10.11.1.	Special Education	51
1.10.11.2.	Integrated Education	51
1.10.11.3.	Inclusive Education	52
1.10.12.	<u>Problems of Inclusive Education in India</u>	54
1.10.13.	Ways of Supporting Inclusive Education in India	55
1.11.	Transition from Segregation to Inclusion	57
1.12.	<u>Principles of Inclusive Education</u>	59
1.13.	<u>Models of Inclusion</u>	60
1.14.	Exercise	63

Unit 2: Legal and Policy Perspectives

2.1.	International Declarations and Conventions	64
2.1.1.	Introduction	64

2.1.2.	Salamanca Statement and Framework of Action, 1994	64
2.1.2.1.	Main Provisions Relating to Right to Education	65
2.1.3.	Framework of Action	67
2.1.4.	Educational Provisions in the UN Convention on the Rights of Person with Disabilities (UNCRPD), 2006	69
2.1.4.1.	The UN Convention on the Rights of Persons with Disabilities	72
2.1.4.2.	Human Rights-Based Approach to Disability Given by the UN	73
2.2.	Education of Students with Disabilities in Various Policies	76
2.2.1.	Constitutional Provisions	76
2.2.2.	National Policy on Education (NPE), 1968	76
2.2.3.	National Policy on Education (NPE), 1986	77
2.2.4.	Programme of Action (POA), 1992	78
2.2.5.	Persons with Disabilities (Equal Opportunities, Protection of Rights & Full Participation) Act, 1995	78
2.2.6.	National Policy on Disability, 2006	79
2.2.6.1.	Focus of the Policy	79
2.2.7.	Right to Education (RTE) Act, 2009	82
2.2.7.1.	Role of RTE Act	82
2.3.	Role of Organizations for Education of Children with Disabilities	83
2.3.1.	Rehabilitation Council of India (RCI) Act, 1992	83
2.3.1.1.	Objective of Rehabilitation Council of India (RCI)	84
2.3.1.2.	Functions of the Council	85
2.3.1.3.	National Programmes of RCI	90
2.4.	National Institute of Different Disabilities	91
2.4.1.	National Institute of Visually Handicapped (NIVH), Dehradun	92
2.4.1.1.	Activities of NIVH, Dehradun	92
2.4.1.2.	Academic Courses run by NIVH	93
2.4.1.3.	Braille Press	93
2.4.1.4.	Placement Services offered by NIVH	94
2.4.2.	National Institute for Orthopaedically Handicapped (NIOH), Kolkata	94
2.4.2.1.	Rehabilitation Services Provided by the Institute	95
2.4.3.	Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNHH)	95
2.4.3.1.	Services Provided by the Institute	95
2.4.3.2.	Training Programmes	96
2.4.4.	National Institute of Mentally Handicapped (NIMH), Secundrabad	97
2.4.4.1.	Academic Programmes run by the Institute	97
2.4.5.	Swami Vivekananda National Institute of Rehabilitation, Training & Research (SVNIRTAR), Cuttack	98
2.4.5.1.	Academic Courses Offered by the Institute	98
2.4.5.2.	Rehabilitation Therapies Provided by the Institute	98
2.4.6.	Pandit Deen Dayal Upadhyaya Institute for the Physically Handicapped (IPH), New Delhi	99

2.4.6.1. Academic Courses Offered by the Institute	99
2.4.6.2. Rehabilitation Services Offered by the Institute	99
2.4.7. National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD), Chennai	100
2.4.7.1. Objectives of the Institute	100
2.4.7.2. Academic Courses Run by the Institute	100
2.4.7.3. Rehabilitation Services	101
2.5. Composite Regional Centres (CRCs)	101
2.5.1. Introduction	101
2.5.2. Aim of Composite Regional Centres (CRCs)	102
2.5.3. Beneficiaries of Composite Regional Centres (CRCs)	102
2.5.4. Team of Experts	102
2.6. <u>District Disability Rehabilitation Centres (DDRCs)</u>	103
2.6.1. Features of DDRC	103
2.6.2. Objectives of setting up of DDRC	103
2.6.2.1. Action plan of DDRCs	104
2.6.2.2. Rehabilitation Services Provided by DDRC	104
2.6.2.3. Roles and Responsibilities	105
2.7. <u>Non-Voluntary Government Organisations (NGOs)</u>	106
2.7.1. Introduction	106
2.7.2. Role of Non-Governmental Organisation (NGOs)	106
2.7.3. Role of International Organisations	107
2.7.4. Limitations of NGOs	108
2.7.5. Problems Faced by NGOs	109
2.8. Exercise	109

Unit 3: Special Needs and Inclusion

3.1. <u>Special Needs</u>	110
3.1.1. <u>Concept of Special Needs</u>	110
3.1.2. <u>Meaning and Definitions of Special Needs</u>	110
3.1.3. <u>Types of Special Needs</u>	111
3.1.4. <u>Learning Styles</u>	114
3.1.4.1. <u>Types of Learning Styles</u>	115
3.1.4.2. <u>Importance of Learning Styles</u>	116
3.2. <u>Schools Awareness & Readiness for Addressing Learning Difficulties</u>	116
3.2.1. <u>Introduction</u>	116
3.2.2. <u>Meaning and Definitions of School Readiness</u>	117
3.2.3. <u>Characteristics of Ready School</u>	118
3.2.4. <u>Elements of School Readiness</u>	118
3.2.5. <u>Prerequisites for School Readiness</u>	118
3.2.6. <u>Domains of School Readiness</u>	119
3.2.7. <u>Factors Affecting School Readiness</u>	120
3.2.8. <u>Issues of School Readiness</u>	122
3.3. <u>Inclusive Schools</u>	122

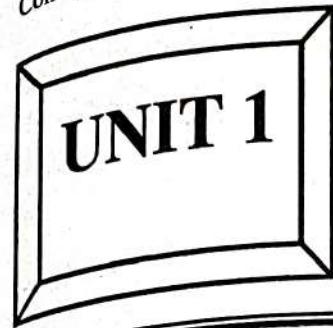
3.3.1.	Concept of Inclusive School	122
3.3.2.	<u>Meaning and Definitions of Inclusive School</u>	123
3.3.3.	<u>Characteristics of Inclusive School</u>	124
3.3.4.	<u>Role of Inclusive School in Modern Times</u>	124
3.3.5.	<u>Infrastructural Facilities for an Inclusive School</u>	126
3.3.5.1.	Policies and Programmes for Infrastructural Facilities	128
3.3.6.	Awareness and Positive Attitude Towards Disability	129
3.3.6.1.	Effective Policies to Change Attitudes	130
3.3.7.	Human Resources	131
3.3.8.	Whole School Approach	132
3.3.8.1.	Characteristics of A Whole-School Approach	133
3.4.	Exercise	133

Unit 4: Practices and Support System for Inclusive Set up

4.1.	Pedagogical Strategies to Respond to Individual Needs of Learners in Classroom	134
4.1.1.	Peer Tutoring	134
4.1.1.1.	Objectives of Peer Tutoring	135
4.1.1.2.	Peer Tutoring Models	135
4.1.1.3.	Selection of Tutors and Tutees	136
4.1.1.4.	Selection of Peer Tutoring Models	136
4.1.1.5.	Training of Peer Tutors	137
4.1.1.6.	Planning and Implementation of Peer Tutoring Programme	137
4.1.1.7.	Advantages of Peer Tutoring	137
4.1.2.	Cooperative Learning	138
4.1.2.1.	Characteristics of Cooperative Learning	138
4.1.2.2.	Key Elements of Cooperative Learning	139
4.1.2.3.	Types of Cooperative Learning	139
4.1.2.4.	Cooperative Learning Strategies in Classroom	141
4.1.2.5.	Benefits for Special Needs Students	143
4.1.2.6.	Advantages of Cooperative Learning	144
4.1.2.7.	Disadvantages of Cooperative Learning	145
4.1.3.	Social Learning	145
4.1.3.1.	Social Learning Theory	146
4.1.3.2.	Steps in Social Learning Process	147
4.1.3.3.	Merits of Social Learning Theory	148
4.1.3.4.	Demerits of Social Learning Theory	148
4.1.3.5.	Educational Implications of Social Learning Theory	148
4.1.4.	Buddy System	148
4.1.4.1.	Types of Buddy Systems	149
4.1.4.2.	Importance of Buddy Systems	150
4.1.5.	Reflective Teaching	151
4.1.5.1.	Advantage of Reflective Teaching	151
4.1.6.	Multisensory Teaching	152
4.1.6.1.	Types of Multisensory Teaching Techniques	152

4.1.6.2. Importance Multisensory Teaching	153
4.2. Support Services and Partnership in Teaching	153
4.2.1. Support Services	153
4.2.1.1. Needed Support Services for Inclusive School	154
4.2.1.2. Types of Support Services	154
4.2.2. Developing Positive Relationship between School and Home	155
4.2.2.1. Types of Family-School Involvement	156
4.2.2.2. Beliefs and Attitudes that Foster Collaborative Family-School Partnerships	157
4.2.2.3. Role of School	158
4.2.2.4. Role of Home/Family in Inclusive Education	161
4.3. Teaching and Co-Teaching Personnel	161
4.3.1. Parents and Teachers	162
4.3.2. Teacher and Special Teacher	163
4.3.2.1. Qualities of an Inclusive Teacher	164
4.3.2.2. Role of Inclusive Class Teachers to Meet Special Needs of Children with Disabilities in Inclusive Schools	165
4.3.2.3. Role of Classroom Teachers in Shaping Inclusive Classroom	166
4.3.3. Team of Teacher	168
4.3.3.1. Role of Team Teacher	168
4.3.4. Parents	169
4.3.4.1. Parent Rights and Responsibilities	169
4.3.4.2. Benefits of Parents Involvement	170
4.3.5. Special Educator	172
4.3.5.1. Role of Special Educator	172
4.3.5.2. Problems of Special Educator	173
4.3.5.3. Addressing Problems of Special Educator	174
4.3.6. Speech Therapist	174
4.3.6.1. Role of Speech Therapist	174
4.3.7. Physiotherapist	175
4.3.7.1. Role of the Physiotherapist	176
4.3.8. Occupational Therapist	176
4.3.9. Counsellor	177
4.4. Professional Training of Teachers in Inclusive Schools	177
4.4.1. Concept of Teachers' Training Programmes	177
4.4.2. Various Programmes for Teachers' Training	178
4.4.2.1. Seva-in-Action (SIA)	179
4.4.2.2. Teacher Training Course in IED	179
4.4.2.3. Certificate Course in Community Based Rehabilitation (1991-93)	180
4.4.2.4. Learning Together-Inclusive Education Video Training Program (1999)	180
4.4.2.5. Multi-Category Teachers Training on Inclusive Education	180
4.4.2.6. Master Trainers of Shiksha Karmi Programme	181
4.4.2.7. Training Programme on Inclusive Education (IE)	181
4.4.2.8. Short Term and Decentralised Training Programmes	181

4.4.2.9. Knowledge Development and Capacity Building in Inclusive Education	182
4.4.2.10. Able Disable All People Together (ADAPT)	182
4.4.3. Organisation of Teacher Education	182
4.4.3.1. Pre-service Teacher Education	183
4.4.3.2. In-Service Teacher Education	183
4.4.3.3. Agencies of Teacher Education	184
4.4.4. Initiatives Taken for Improving the Condition of the Teachers	184
4.4.5. Rationale for an In-service Teacher Training Programme	185
4.5. Assistive and Adaptive Technologies in Inclusive Setup	186
4.5.1. Adaptive and Assistive Technology (Devices)	187
4.5.1.1. Meaning and Definitions of Adaptive Technology (Device)	187
4.5.1.2. Meaning and Definition of Assistive Technology (Device)	188
4.5.1.3. Objectives of Adaptive and Assistive Technology (Devices)	188
4.5.1.4. Difference between Assistive Technology & Adaptive Technology	189
4.5.1.5. Types of Adaptive and Assistive Technology (Devices)	189
4.5.1.6. Services Offered by Assistive Technology	191
4.5.2. Adaptive Equipment and Other Technologies	192
4.5.2.1. Types of Adaptive Equipments	192
4.5.2.2. Assistive and Adaptive Technologies, Equipments for Varying Types of Disabled Students in the Inclusive Set-up	194
4.5.2.3. Importance of Assistive and Adaptive Technology	196
4.5.3. <u>Information and Communication Technology (ICT)</u>	198
4.5.3.1. Meaning and Definition of Information and Communication Technology (ICT)	198
4.5.3.2. Characteristics of ICT	198
4.5.3.3. Objectives of ICT in Education	199
4.5.3.4. Role of Information and Communication Technology (ICT) in Inclusive Education	199
4.5.3.5. Role and Functions of ICT	201
4.5.3.6. Advantages of ICT	202
4.5.3.7. Disadvantages of ICT	203
4.6. Exercise	204
Model Papers	205



Concept of Exceptionality and Children with Special Needs

1.1. UNDERSTANDING DIVERSITIES/ DIFFERENCES

1.1.1. Diversity ✓ Jmp.

The concept of diversity encompasses acceptance and respect. It means understanding that each individual is unique, and recognising our individual differences. These can be along the dimensions of race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, religious beliefs, political beliefs, or other ideologies. It is the exploration of these differences in a safe, positive and nurturing environment. It is about understanding each other and moving beyond simple tolerance to embracing and celebrating the rich dimensions of diversity contained within each individual.

Diversity involves not only how people perceive themselves but also how they perceive others. Those perceptions affect their interactions. For a wide assortment of employees to function effectively as an organisation, human resource professionals need to deal effectively with issues such as communication, adaptability and change.

The word diversity comes from old French word 'diversite' which means 'making dissimilar'. Diversity is a set of conscious practices that involve understanding and appreciating interdependence of humanity, cultures and the natural environment; practicing mutual respect for qualities and experiences that are different from our own. Diversity means the variations and differences found among any group of children or adults.

Diversity is defined "as anything that diverts or deviates from the norm. As such, diversity exists in regards to ideas, opinions, goals, genders, ethnicities, communication styles and even teaching and learning styles."

Central Michigan University defines diversity as "The ranges of differences among people in the community. An attitude that recognises the value and contributions of all members of our community, a commitment to respect and to provide equitable treatment for members of our community."

According to Hallet (1996), "Diversity refers not only to differences of culture and ethnicity but also to differences in gender and sexual orientation, to psychological and cognitive differences between people, to differences in political values and beliefs".

According to the Merriam-Webster Dictionary, diversity is as "the condition of having or being composed of different elements, especially the inclusion of different types of people in a group or organisation."

Alberta Health Services defines diversity as "all the ways in which we are unique and different from others. Dimensions of diversity include but are not limited to such aspects as race, religion, and spiritual beliefs, cultural orientation, colour, physical appearance, gender identity, sexual orientation, ability, education, age, ancestry, place of origin, marital status, family status, socio-economic circumstance, profession, language, health status, geographic location, group history, upbringing and life experiences".

The Centre for Research on Education, Diversity and Excellence (CREDE) defines diversity in its focus "on improving the education of students whose ability to reach their potential is challenged by language or cultural barriers, race, geographic location, or poverty."

According to Pearson (2010), "Learner diversity is the group and individual differences that we see in students."

1.1.2. Individual Differences

"No two children are the same." It means that the every child is different from each other. They are differing from each other on different grounds such as physique, health, intelligence, etc. Inclusive education aims at including all children, it means children with diverse needs and children with abilities and disabilities (this includes children with disabilities and developmental delays, children with complex healthcare needs, children with challenging behaviours, and children with mental concerns).

Historically, people with disabilities were often placed in hospitals, asylums, or other institutions that provided little, if any, education. The concept of children with special need has been originated from British isle. The government commission chaired by Baroness Marry Warnock (1978) reported to the government on the findings of its inquiry into special education in Britain.

Individual differences refer to the distinctiveness or variations among individuals, which is not only in form of physical characteristics such as height, weight, complexion or eye-colour but in psychological attributes as well cognitive functions (like intelligence) or affective aspects (like emotional expressions).

It is evident that the differences increase (rather than decreasing) as children mature from childhood to adolescence. As all individuals are different, no two people can be expected to react in the same manner to the same environmental

stimuli. Timid children react differently from aggressive ones, and those who are carefree and easy-going are not as upset by minor stresses as those who are shy and sensitive.

According to Plato, individual difference may be defined as, "No two persons are born exactly alike; but each differs from the other in natural endowments, one being suited for one occupation and the other for another".

According to Tyler, "Measurable differences have been shown to exist in physical size and shape, physiological functions, motor capacities, intelligence, achievement and knowledge, interests, attitudes and personality traits."

Individual differences are significant because they are responsible for individuality in personality and also make social progress possible. Thus, we can conclude that "the differences among individuals, that distinguish or separate them from one another and make one as a unique individual in oneself, may be termed as individual differences."

1.2. CHILDREN WITH SPECIAL NEEDS (EXCEPTIONAL CHILDREN)

1.2.1. Concept of Disability

The term disability is used for individual functioning. This term is used for individuals like person with physical impairment, person with mental impairment, sensory impairment, cognitive impairment, etc. The word disable is different from the word impairment.

Article 1 of the CRPD describes persons with disabilities as 'those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.'

"Impairment is a kind of disturbance from the normal structure and functionality of the body system. It is a kind of loss or deficit at the organic level of an individual."

Based on the above definition, we can say that impairment causes a certain type of disability, and the disability in turn causes certain specific handicap conditions. For example, visually impaired person will not be able to write whereas handicap is a situation in which a person is not able to participate in social effort due to the impairment.

Table 1.1

Impairment	Disability
1) Irreversible process	1) Reversible process
2) Physical in nature	2) Functional in nature
3) Loss of structure	3) Loss of ability

Uniqueness is the fundamental characteristic of every creation of nature. The term 'Exceptionality' literally means uniqueness. Every child has something unique in himself which makes him exceptional. In this chapter, we will further study about the exceptional children and the educational practices associated with them and also the planning related to teaching with exceptional children. Disability based children are:

- 1) Exceptional children,
- 2) Backward children,
- 3) Deprived children,
- 4) Delinquent children,
- 5) Maladjusted children,
- 6) Children with learning disabilities,
- 7) Physically handicapped, and
- 8) Mentally retarded.

1.2.2. Meaning and Definitions of Children with Special Needs

Special needs children are those who have special requirement of care and treatment. These children are totally different in comparison to common children. Special needs children are also known as diverse needs children or exceptional children. They include those who have mental retardation, which causes them to develop more slowly than other children. They have speech and language impairment such as a problem expressing themselves or understanding others, physical disability such as vision problem, cerebral palsy, or other conditions and learning disabilities, which distort messages from their senses and emotional disabilities such as anti-social or other behavioural problems.

Exceptional children are those who have some unique talent or special ability in a particular field. They are different from the average children in their physical, mental, social or emotional traits. This difference can be positive or negative. They can have talent far more or far less than the average children. According to a survey, it is said that most of the individuals in a group falls towards average in any trait, so the curriculum of education is designed according to the average students.

According to Herry J. Baker, "Those who deviate from what is supposed to be average in physical, mental, emotional or social characteristics to such an extent that they require special education services in order to develop their maximum capacity."

According to American National Society for Study of Education, "An exceptional child is one who deviates from the normal or average child in physical, mental, social, educational, emotional and behaviouristic characteristics to such an extent that he requires a modification of school practice or special education services in order to develop to his maximum capacity."

According to Reber and Reber, "Exceptional child as used in child psychology refers to extremely talented and gifted children as well as to those having low intelligence or other learning disabilities."

According to Telford and Sawrey (1977), "The term exceptional children refers to those children who deviate from the normal in physical, mental, emotional or social characteristics to such a degree that they require special social and educational services to develop their maximum capacity."

According to W.M. Cruichshank, "An exceptional child is he who deviates physically, intellectually and socially so markedly from normal growth and development that he cannot be benefitted from regular classroom programme and needs special treatment in school".

When limitations related to a medical condition arise and begin to have a negative effect on essential life functions, such as walking, talking, seeing, hearing, or working, a person is said to have a disability. It is important to recognise that disability is not an illness, just as health and illness exist along a continuum, so, does disability.

1.2.3. Characteristics of Children with Special Needs

Characteristics of children with special needs are as follows:

- 1) These children are different from a normal child,
- 2) These children show varied behaviour,
- 3) These types of children suffer from physical, mental problems,
- 4) They have to face problems in adjusting to their environment due to their diverse needs,
- 5) They have need of special care for developing their abilities and capacities, proper adjustment overall growth and development, and
- 6) They have requirement of special education.

1.2.4. Categorisation of Children with Special Needs

Children with special needs can be categorised into different forms. These are depicted under following figure 1.1:

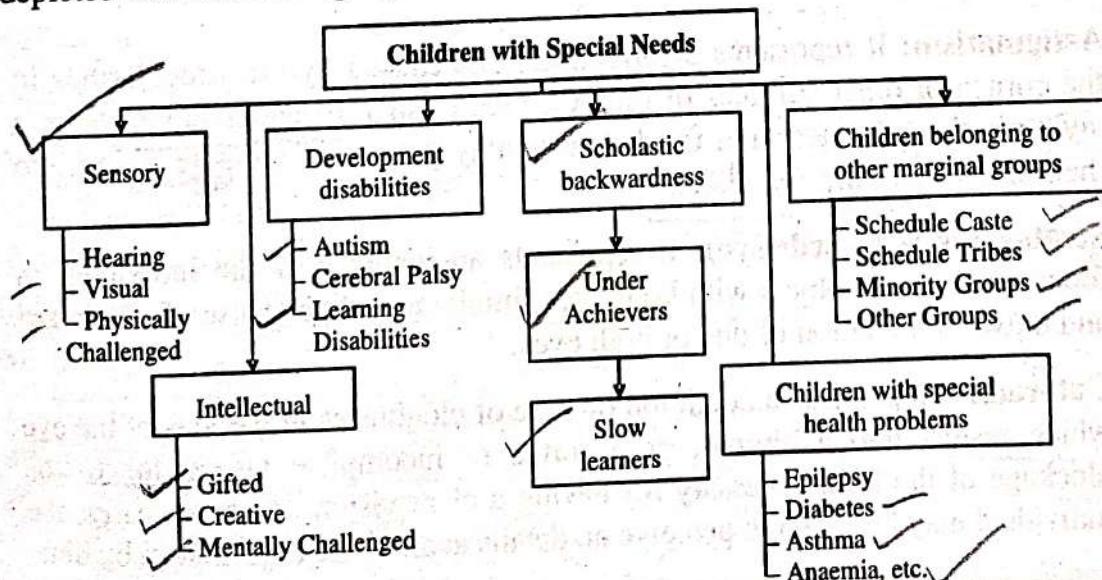


Figure 1.1

1.3. VISUAL IMPAIRMENT

1.3.1. Meaning of Visual Impairment

Vision is the most actively used sense by man. Visual anomalies may influence the life of the individual in physical, mental, social, vocational and educational aspects. There are more people suffering from low vision than those who are totally blind. Students with visual impairments are constantly challenged by classroom instructional strategies. Although they can easily hear lectures and discussions, it can be difficult for them to access class syllabi, textbooks, overhead projector-transparencies, PowerPoint presentations, the chalkboard, maps, videos, written exams, demonstrations, library materials, and films. A large part of traditional learning is visual; fortunately, many strategies have been developed for students with visual disabilities to study and learn.

According to IDEA, "Visual impairment including blindness means impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness."

1.3.2. Types of Visual Impairment

The various types of visual impairments are as follows:

- 1) **Myopia (Near Sightedness):** It represents a refractive error in which one can see near objects but the objects lying at more distance are either not seen at all or blurred. It happens when the size of the eye is too larger than normal from front to back resulting into the focusing of the image of the object in front of rather than on retina.
- 2) **Hyperopia (Far Sightedness):** It represents a refractive error in which one feels difficulty in seeing near objects clearly but can focus well on more distant objects. It happens when the size of the eye is too shorter than normal resulting into the focusing of the image of the object behind rather than on the retina.
- 3) **Astigmatism:** It represents a refractive error caused by the irregularities in the cornea or other surfaces of the eye. Due to such irregularisation, objects laying both at the near and far distances may get out of focus resulting into their distorted or blurred vision.
- 4) **Strabismus (Crossed Eye):** It represents an inability of the individual to focus on the same object with both eyes simultaneously because of an inward and outward deviation of one or both eyes.
- 5) **Cataract:** It represents a condition or state of cloudiness in the lens of the eye which results into a blurred, or distorted or incomplete vision due to the blockage of the light necessary for having a clear vision. In severe cases, the individual may be found to perceive no details at all of the objects seen by him.
- 6) **Glaucoma:** This impaired condition of the eye is characterised by abnormally excess pressure within the eye due to the disturbances or

blockage of the fluids that normally circulate within the eye. In case it goes unnoticed and untreated, the excess pressure may cause serious damage to the retina and optic nerve resulting into blindness.

- 7) **Retinitis Pigmentosa:** It represents a hereditary disease of the eye which causes gradual degeneration of the retina. In the beginning it may create difficulty to a child in seeing at night and then may cause him the loss of peripheral vision.
- 8) **Coloboma:** It represents a congenital condition in which the central and/or peripheral areas of the retina of a newborn are found incomplete in their formation. Gradually, it may degenerate into serious impairments of the visual field and/or central visual acuity.
- 9) **Retinopathy of Prematurity:** Previously known as retrolental fibroplasia which represents a condition caused by administering high levels of oxygen to at-risk infants. It is known to be resulting into scar tissue formation behind the lens of their eyes leading to visual impairment and often total blindness.
- 10) **Diabetic Retinopathy:** As the name suggests the impairment in the retina, here is caused by the consequences of one's suffering from diabetes available in the form of unusual interference with the blood supply to the retina. Such interference may result into serious vision impairment including total blindness.
- 11) **Nystagmus:** A muscular defect of the eye in which side to side rapid involuntary movement may cause difficulty in focusing objects and thus may interfere with the process of having clear vision of these objects.
- 12) **Amblyopia:** A type of muscular defect of the eyes in which loss of vision occurs due to muscle imbalance. The child affected by this disorder, falls victim of double vision (two images of the same object). The brain in its attempt to reduce the confusion tries to repress the vision in one eye, resulting in loss of sight to the unused eye.

1.3.3. Causes of Visual Impairment

According to NPCB -WHO the major causes of visual impairment are Cataract, Refractive Errors, Corneal Opacity, Glaucoma, Trachoma, Malnutrition, Other Infections, Small Pox (Old Cases), Injuries, and others including:

- 1) Heredity,
- 2) Carelessness adopted by the pregnant mothers in their diets, malnutrition, use of strong drugs,
- 3) The mishaps and incidents at the time of birth of the child,
- 4) Starvation, malnutrition and unhygienic conditions faced by the child in early years,
- 5) Infectious diseases like small pox, chicken pox and measles, etc.,
- 6) Diseases of the eye and infection,
- 7) Deficiency of the vitamins,
- 8) Improper posture adopted at work injury of the eyes,
- 9) Poisoning and intoxicating substances, alcoholism and drug addiction, and
- 10) Effects of external objects like dust, smoke and pollution, etc.

1.3.4. Symptoms of Visually Impaired Children

Common signs that a child may have a visual impairment include the following:

- 1) Irregular eye movements (e.g., eyes that do not move together or that appear unfocused).
- 2) Unusual habits (such as covering one eye or frequently rubbing eyes).
- 3) Sitting abnormally close to a television or holding a book close to the face.

1.3.5. Education for Visually Impaired Children

Education for visually impaired children given by keeping following points in mind:

- 1) Curriculum for blind children should be different from the normal curriculum.
- 2) Daily task and useful skill training should be arranged for them to make them self-dependant.
- 3) The Braille Teaching method should be used for them as it is very effective.
- 4) Government guardians and voluntary organisations should cooperate with them.
- 5) There should be no examinations for them.
- 6) There should be residential schools for their education.
- 7) Specially trained teachers should be appointed.
- 8) They should be treated with love, sympathy and cooperation.

1.3.6. Teaching Students with Visually Impairments

Following ways can be suggested to teach students who are visually impaired:

- 1) Preferential Seating: Students with visual impairments may need preferential seating since they depend upon listening. Since they may want the same anonymity as other students, it is important to avoid pointing out the student or the alternative arrangements to others in the class.
- 2) Exam Accommodations: It may include adaptive technology, a reader/scribe and extra time, a computer, Closed Circuit TV (CCTV), Braille, enlargements, tapes, or image enhanced materials, may be needed. Coordinate these arrangements with the Office for Disability Services (ODS).
- 3) Arranging for Accommodations: A meeting with the student is essential to facilitate the arrangements of accommodations and auxiliary aids which may include, in addition to exam accommodations, access to class notes and the taping of lectures; print material in alternative format; a script with verbal descriptions of videos or slides, charts, and graphs, or other such visual depictions converted to tactile representations.
- 4) Orientation to Classroom: A teacher may also ask the student if he/she would like an orientation to the physical layout of the room with locations of steps, furniture, lecture position, low-hanging objects or any other obstacles.
- 5) Use of Language: Although it is unnecessary to rewrite the entire course, teacher can help a visually impaired student by avoiding phrases such as

"Look at this" and "Examine that," while pointing to an overhead projection. Use descriptive language. Repeat aloud what is written on an overhead or chalkboard.

- 6) **Lab Assistance:** These students may need a lab assistant or lab partner in lab classes. Assist the student in finding an assistant.
- 7) **Print Material in Alternative Format:** Have copies of the syllabus and reading assignments ready three to five weeks prior to the beginning of classes. Students with visual impairments will likely need all print material in alternative format which means that they need print material converted to audio tapes, scanned onto disks, Braille, enlarged or image enhanced. Conversion of materials takes time. It is important that they have access to class materials at the same time as others in class.

1.4 HEARING IMPAIRMENT

1.4.1. Meaning of Hearing Impairment

A hearing impairment is also called a hearing loss that prevents a person from totally receiving sounds through the ear. Hearing loss exists on a continuum from mild to profound, and most special educator distinguishes between children who are deaf and hard of hearing. A child who is deaf is not able to use hearing to understand speech. He uses vision as the primary modality for learning and communication. But children who are hard of hearing are able to use their hearing to understand speech, with the help of hearing aid.

Hearing impairment or deafness refers to conditions in which individuals are fully or partially unable to detect or perceive atleast some frequencies of sound which can typically be heard by members of their species.

According to Individuals with Disabilities Education Act (IDEA) hearing impairment is "an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but is not included under the definition of 'deafness'."

Deafness is defined as "a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification."

A hearing loss above 90 decibels is generally considered deafness, which means that a hearing loss below 90 decibels is classified as a hearing impairment.

1.4.2. Characteristics of Hearing Impaired Children

Characteristics of hearing impaired children are as follows:

- 1) Hearing impairment leads to loss of normal verbal communication and problems with learning disability.
- 2) Children show little or no attempt to interact.
- 3) Children may have difficulty in motor development.

- 4) Generally children use gestures for communication.
- 5) They do not respond consistently to sounds or to his or her own name.
- 6) They ask for things to be repeated or delayed in developing speech or have unclear speech.
- 7) They turn the volume up loud on the T.V. and other electronic devices.

1.4.3. Types of Hearing Impairment

Hearing impairment is of following types:

- 1) **Conductive Hearing Loss:** It is characterised by an obstruction to air conduction that prevents the proper transmission of sound waves through the external auditory canal or the middle ear. It is caused by diseases or obstructions in the outer or middle ear that usually affect all frequencies of hearing. A hearing aid generally helps a person with a conductive hearing loss.
- 2) **Sensorineural Hearing Loss:** It occurs when the sensory receptors of the inner ear are dysfunctional. This loss can range from mild to profound and often affects certain frequencies more than others. Sounds are often distorted, even with a hearing aid.
- 3) **Mixed Hearing Loss:** It occurs in both the inner and outer or middle ear. Mixed hearing loss is due to disorders that can affect the middle and inner ear simultaneously, such as otosclerosis involving the ossicles and the cochlea, head trauma, middle ear tumours, and some inner ear malformations.
- 4) **Unilateral or Central Hearing Loss:** It results from damage to the central nervous system.

Hearing impairments are also classified in terms of the severity and type of hearing impairment. The severity of the hearing impairment is categorised based on the minimum sound that can be heard with normal ear.

- 1) **Mild Hearing Impairment:** With mild hearing impairment, the minimum sound that can be heard is between 25 and 40db. People at this level cannot hear soft noises and may have trouble following conversations in noisy settings.
- 2) **Moderate Hearing Impairment:** With moderate hearing impairment, the minimum sound that can be heard is between 40 and 70db. People at this level cannot hear soft or moderately loud noises and may have trouble hearing unless they use a hearing aid.
- 3) **Severe Hearing Impairment:** With severe hearing impairment, the minimum sound that can be heard is between 70 and 95db. People at this level are unable to hear most noises and may rely on lip-reading or sign language, even with the use of a hearing aid.
- 4) **Profound Hearing Impairment:** With profound hearing impairment, the minimum sound heard is 95db and over. People at this level may only hear very loud noises and rely solely on lip-reading and/or sign language. Hearing aids are not effective.

1.4.4. Degrees of Hearing Loss

Degrees of hearing loss are as follows:

- 1) **Deaf/Deafness:** It refers to a person who has a profound hearing loss and uses sign language.
- 2) **Difficulty in Hearing:** It refers to a person with a hearing loss who relies on residual hearing to communicate through speaking and lip-reading.
- 3) **Hearing Impaired:** It is a general term which is used to describe any deviation from normal hearing, whether permanent or fluctuating, and ranging from mild hearing loss to profound deafness.
- 4) **Residual Hearing:** It refers to the hearing that remains after a person has experienced a hearing loss. It is suggested that greater the hearing loss, the lesser the residual hearing.

The level of severity of hearing loss can be defined under following **table 1.2:**

Table 1.2: Degrees of Hearing Loss

10-15 db HL	Normal Hearing
16-25 db HL	Slight Hearing Loss
26-40 db HL	Mild Hearing Loss
41-55 db HL	Moderate Hearing Loss
56-70 db HL	Moderate to Severe Hearing Loss
71-90 db HL	Severe Hearing Loss
> 90 db HL	Profound Hearing Loss

1.4.5. Causes of Hearing Impairment

Hearing impairment is caused by:

- 1) **Heredity:** The leading cause of deafness is genetic factors. Most hereditary deafness is the result of recessive genetic traits and the marriage of two deaf people's results in only a slightly increased risk of deafness in their child.
- 2) **Maternal Rubella:** It has been shown to cause deafness, visual impairment, heart disorders and a variety of other serious disabilities in the developing child when it affects a pregnant woman, during the trimester.
- 3) **Meningitis:** It is a bacterial or viral infection of the central nervous system that can, among its other effects, destroy the sensitive apparatus of the inner ear.
- 4) **Noise Pollution:** Repeated exposure to loud sounds of industrial noise, jet aircraft, guns and amplified music is increasingly recognised as a cause of hearing loss.

Causes like genetic, birth, experiences, meditations, diseases, physical trauma, age, environment, house, etc., also affects a lot in hearing loss. In children, hearing loss can lead to social isolation for several reasons. They experience delayed social development and delayed language acquisition. Hence, the person becomes emotionally disturbed; face their own challenges, living with the adaptations that make it impossible for them to live independently. They adapt using hearing aids or a cochlear implant, develop speech, reading skills or learn sign language.

1.4.6. Educational Challenges of Hearing Impairment

A student with a hearing impairment may experience difficulty in:

- 1) The subjects of grammar, spelling and vocabulary,
- 2) Taking notes while listening to lectures,
- 3) Participating in classroom discussions,
- 4) Watching educational videos, and
- 5) Presenting oral reports.

1.4.7. Educational Implications of Hearing Impairment

Hearing loss or deafness does not affect a person's intellectual capacity or ability to learn. However, children who have difficulty in hearing or deaf generally require some form of special education services in order to receive an adequate education. Such services may include:

- 1) Regular speech, language, and auditory training from a specialist.
- 2) Amplification systems.
- 3) Services of an interpreter for those students who use sign language.
- 4) Favourable seating in the class to facilitate lip reading.
- 5) Captioned films/videos.
- 6) Assistance of a note taker, who takes notes for the student with a hearing loss, so that the student can fully attend to instruction.
- 7) Instruction for the teacher and peers in alternate communication methods, such as sign language and in counselling.

Children who have difficulty in hearing will find it much more difficult than children who have normal hearing to learn vocabulary, grammar, word order, idiomatic expressions, and other aspects of verbal communication. For children who are deaf or have severe hearing losses, early, consistent, and conscious use of visible communication modes (such as sign language, fingerspelling, and Cued Speech) and/or amplification and aural/oral training can help to reduce this language delay.

1.4.8. Educational Services for Children with Hearing Impairment

Education of children with hearing impairment in India is just a little over a hundred years old. At present, there are various educational provisions available. These include:

1) **Schools:** At present, over 500 schools for the hearing impaired children are available in the country. The government established and administers some schools whereas the NGOs run many others. Most of the schools, still residential, admit children aged 5 years and above who spend the entire school year in the hostels; they go home only during summer vacation. Provision of vocational courses and sheltered workshops facilitates spending almost the entire lifetime of some students in these schools. Schools do not go beyond 8th standard in some States such as West Bengal. Beyond this, the National Open School is the option. Schools go-up to Higher Secondary level

in some States like Tamil Nadu and Maharashtra with variation in the syllabus for the hearing-impaired students; same syllabus as in the regular education system in Tamil Nadu; separate syllabus with a waiver for some subjects in Maharashtra.

2) **Colleges:** There are two prominent colleges for the deaf, one in Chennai, Tamil Nadu affiliated to the University of Madras and another in Valakam, Kerala conduct degree courses in Commerce and Art subjects; a third programme is under the Indira Gandhi National Open University, New Delhi.

3) **Qualitative Aspects of Education Imparted:** There was no uniformity in the training offered to teachers of the hearing impaired. Recently, the Rehabilitation Council of India has revamped the training courses. However, the educators are faced many problems which are discussed below:

- i) **Hearing Aids:** In the ADIP schemes of the Ministry of Social Justice and Empowerment, Government of India, only those hearing aids approved are distributed which limits the choice. Many parents in the economically weaker sections are not able to meet the recurring expenses; replacement of cells multiple times in a month, broken cord and damaged receivers, replacement of ear moulds as and when the child outgrows them. Suitable hearing aids are not available to all the children enrolled in the schools. Hearing aids of high-end technology are expensive. The cells required are very costly and available only in metro cities.
- ii) Lack of adequate repair services locally.
- iii) Downtime is more when the children in some schools are allowed to use the hearing aids only inside the classrooms.
- iv) Poor knowledge in maintenance and troubleshooting of hearing aids.
- v) Lack of periodical review and replacement of hearing aids, which may not be meeting the child's needs for various reasons.
- vi) Deprivation of effective hearing aid usage due to improper choice of hearing aids, use of rundown cells and damaged accessories.

1.5. MENTAL RETARDATION/ DISABILITY

1.5.1. Meaning of Mental Retardation

These children are those whose intelligence is less than average. Generally, no mother or father is easily prepared to accept that their child is mentally retarded. Earlier these kinds of children were recognised as backward children. But according to some psychologists, at present, mentally retarded children are those children who possess very less intelligence than average from the birth itself and who are not able to adjust with the society.

According to Heber, "Mental retardation refers to sub-average general intellectual functioning which originates during the development period and is associated with impairment in adaptive behaviour".

"Mentally retarded children are those whose brain and intelligence are so less developed that they face difficulty in reading, writing and adjustment."

The American Psychological Association has defined Mental Retardation (Mental Deficiency), "as significantly sub-average general intellectual functioning existing concurrently with deficits in adaptive behaviour and manifested before the age of 18".

The World Health Organisation (WHO) has defined Mental Retardation as, "incomplete or insufficient development of mental capacities".

According to Page, "Mentally retarded child is a condition or subnormal mental development present at birth or early childhood and characterised mainly by limited intelligence and social inadequacy."

According to Kuppuswamy, "Educational backwardness is the result of multiple causations. Many factors combine together to cause slowness in learning."

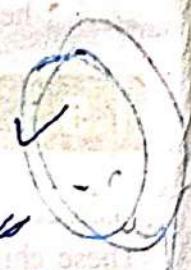
According to British Mental Deficiency Act 1981, "Mental retardation is a condition of arrested or incomplete development of mind existing before the age of 18 years whether arising from inherent causes or induced by disease or injury."

Mental retardation is not considered as a disease but a condition with deficits in adaptive and social functioning, which has a developmental origin that occurs in the developmental period, which is before the age of 18.

1.5.2. Characteristics of Mentally Retarded Children

Following are the characteristics of mentally retarded children:

- 1) Their IQ ranges from 50-70.
- 2) They are slow learners.
- 3) They are self-centred.
- 4) They cannot easily adjust with the society.
- 5) They lack self-confidence.
- 6) They are emotionally unstable.
- 7) They do not have the ability to think, imagine, analyse and decide.
- 8) They learn everything late (sit, walk, read, etc.).
- 9) They are unable to understand the cause-and-effect relationship.



1.5.3. Types of Mental Retardation

Four major types of mental retardation are as follows:

1) **Mild Mental Retardation:** Approximately 85% of the mentally retarded population is in the mildly retarded category. Their IQ score ranges from 50-75, and they can often acquire academic skills upto the 6th grade level. They can become fairly self-sufficient and in some cases live independently, with community and social support.

2) **Moderate Mental Retardation:** About 10% of the mentally retarded population is considered moderately retarded. Moderately retarded individuals have IQ scores ranging from 35-55. They can carry-out work and

self-care tasks with moderate supervision. They typically acquire communication skills in childhood and are able to live and function successfully within the community in a supervised environment such as a group home.

- 3) **Severe Mental Retardation:** About 3-4% of the mentally retarded population is severely retarded. Severely retarded individuals have IQ scores of 20-40. They may master very basic self-care skills and some communication skills. Many severely retarded individuals are able to live in a group home.
- 4) **Profound Mental Retardation:** Only 1-2% of the mentally retarded population is classified as profoundly retarded. Profoundly retarded individuals have IQ scores under 20-25. They may be able to develop basic self-care and communication skills with appropriate support and training. Their retardation is often caused by an accompanying neurological disorder. The profoundly retarded need a high level of structure and supervision.

1.5.4. Causes of Mentally Retarded Children

There are two main causes of mental retardation:

- 1) **Heredity:** Mental retardation is generally hereditary. It mainly depends upon genes. It does not mean that children of mentally retarded parents are mentally retarded too. Sometimes, children of higher intelligence parents can be mentally handicapped also. It is all based on copulation of genes.
- 2) **Environmental Conditions:** Environment plays a very vital role here. If a child does not receive necessary elements for his intelligence or brain development, he will be mentally retarded. Also after birth, if he will not get proper nutrition, he can become mentally handicapped. Prolonged consumption of drugs and prolonged illness may also lead to mental retardation.

1.5.5. Education of Mentally Retarded Children

Before providing them the education, it should be identified that what is the level of their retardation. For this, methods have already been defined. After this their education should be conducted in the following manner:

- 1) Separate curriculum should be conducted for them.
- 2) Co-curricular activities should be included in the curriculum.
- 3) Vocational education should be provided to them so that they can become self-dependant.
- 4) Audio-visual aids should be used for teaching purpose.
- 5) The cooperation of guardians should be required.
- 6) There should be separate residential schools for them.
- 7) Trained teachers should be appointed for teaching and training.
- 8) They should be treated with love, sympathy and cooperation.
- 9) They should be kept free from fear of examination.
- 10) Demonstration method should be used for teaching.

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1.6. LOCOMOTOR IMPAIRMENT

1.6.1. Meaning of Locomotor Impairment

Locomotor disability or impairment means a person's inability to execute distinctive activities associated with moving, both himself / herself and objects, from place to place, and such inability resulting from affliction of either bones, joints, muscles or nerves.

The locomotor handicapped are those who have restriction in the activity of arms, limbs or other parts of the body on account of damage to the bones, muscles or nerves. Persons suffering from more than 40 per cent disability would be entitled to facilities/concessions provided by Central/State governments.

Locomotor impairment means disability of the bones, joint or muscles leading to substantial restriction of the movement of the limbs or a usual form of cerebral palsy.

A locomotor skill is a physical action that propels an individual from one place to another. This may mean moving forward, backward, or even upwards using certain skills. Examples of locomotor skills include:

- 1) Walking or running,
- 2) Jumping or hopping,
- 3) Galloping or marching, and
- 4) Skipping.

1.6.2. Types of Locomotor Impairment

Locomotor disability can be classified as:

- 1) **Congenital:** The common causes of congenital are cerebral palsy, meningocele, meningo, myelocele, phocomelias, congenital dislocation of hip.
- 2) **Acquired:** Causes of the acquired disability can be put within the following Infective and Traumatic.
 - i) **Infective:** The infective ones are tuberculosis of spine or other joints, chronic osteomyelitis, septic arthritis, acute poliomyelitis, G.B. syndrome, leprosy, encephalitis, AIDS, etc.
 - ii) **Traumatic:** Traumatic ones are traffic accidents (air, water, road), domestic accidents, industrial accidents, agricultural accidents, falling from height, bullet injuries, explosions, violence, sports injuries, natural catastrophes like earthquakes, floods, etc. There can be other causes as well, such as vascular. Some examples are cerebro vascular disease, peripheral vascular disease, perthe's disease.

1.6.3. Characteristics of Locomotor Impaired Children

The child is not able to raise both the arms fully without any difficulty. The child is not able to grasp objects without any difficulty. The child has absence of any part of the limb. The child has difficulty in walking.

- 1) **Psychosocial Characteristics of Locomotor Impairment:** Psychosocial characteristics of locomotor impairment are given below:
 - i) Children belonging to this group face difficulty in social cooperation,

- ii) These children are generally dependent on others, and take much time in doing work,
- iii) They have problems in social bonds, and
- iv) They do not get proper motivation and cooperation by schools.

2) **Educational Characteristics of Locomotor Impairment:** Some educational characteristics of these children are:

- i) These children are not properly able to avail educational opportunities,
- ii) These children are not able to participate in school activities, and
- iii) They generally have high intelligence.

1.6.4. Functional Limitations of Locomotor Impaired Children

Impairment may cause functional limitations which are partial or total inability to perform these activities necessary for motor, sensory or mental function within the range or manner of which a human being is normally capable. The estimation of permanent impairment depends upon the measurement of functional impairment.

The physiological and functional problems suffered by these children are complex and their disabilities may be temporary, intermittent, chronic, progressive or terminal and differ from individual to individual.

Functional limitations of locomotor impaired children are given below:

- 1) Locomotor impairment may restrict the functional ability of the children,
- 2) These children are unable to do physical activities,
- 3) Poor muscles control,
- 4) Weakness and fatigue,
- 5) Difficulty in walking talking, seeing, grasping,
- 6) Inability to use the limbs, and
- 7) Difficulty or total inability with regard to twisting motion.

1.6.5. Causes of Locomotor Impairment

A person with locomotor disability will have limited movement of body parts. The main causes could be injuries, diseases or disfigurements in the bones or muscles or any injuries of the brain, spinal cord or the nerves.

Some common conditions giving rise to locomotor disability could be poliomyelitis, cerebral palsy, amputation, injuries of spine, head, soft tissues, fractures, muscular dystrophies, etc.

Neoplastic conditions are yet another cause of locomotor disability. For example, brain tumours like astrocytoma, meningioma, and spinal tumours like meningioma, astrocytoma, and osteo sarcoma, etc. Among the miscellaneous causes can be muscular dystrophies, rheumatoid arthritis, systemic lupus erythematoses, lathyrism, ankylosing spondylitis, iatrogenic, and so on.

1.6.6. Prevention of Locomotor Impairment

Disability prevention includes all actions taken to reduce the occurrence of impairment (first level prevention) and its development into functional limitation (second level prevention), and to prevent the transition of functional limitation to disability (third level prevention).

1) **First Level Prevention:** This includes all measures directed at reducing the occurrence of impairment, i.e., action taken prior to the onset of disease. First level prevention of locomotor disability may be accomplished by measures designed to promote general health and well-being and quality of life of the people, or by specific protective measures. The concept is also now being applied to the prevention of chronic diseases such as coronary heart disease, hypertension and cancer, based on elimination or modification of risk factors of the disease. Prevention measures for other levels include the following:

- i) Prevention of congenital diseases through prospective counselling (high risk cases) or retrospective counselling (by MTP, contraception etc.).
- ii) Prevention of communicable diseases by immunisation, hygiene, health and education.
- iii) Prevention of malnutrition and vitamin deficiency.
- iv) Prevention of accidents by provision of safety measures at home and work place, and enforcement of legislation e.g. wearing of helmets to prevent head injury.
- v) Prevention of production, use and sale of anti-personnel landmines.
- vi) Elimination of exposure to situations in which locomotor disabilities may occur, in particular, war and other forms of violence, chemical and environmental pollution.
- vii) Reduction of incidence of locomotor disability at first level primarily calls for health education for the general public and also at the level of health personnel, especially attached to a PHC, village workers and anganwadis. Information, Education and Communication (IEC) activities are essential to accomplish proper health education to the masses.

2) **Second Level Prevention:** When impairment occurs, it is necessary to try to prevent any long-term functional limitation from occurring. To achieve it, measures are required specifically in the following three areas:

- i) Ability to identify the impairment that might lead to functional limitation, i.e., development of diagnostic ability, e.g., to diagnose tuberculosis, leprosy, polio- myelitis, fractures, etc.
- ii) Proper and prompt care of impairment in the acute stage to avoid subsequent functional limitation, i.e., care of acute cases, e.g., administration of first aid measures, proper nursing care, etc.
- iii) Proper care of impairment in the chronic stage to avoid functional limitation, i.e., care of chronic cases. This includes provision of appropriate drugs for chronic diseases, e.g., Tuberculosis, leprosy,

hypertension, diabetes-mellitus, etc., provision of therapeutic exercises and proper positioning to avoid deformities, e.g., in polio myelitis, stroke, etc.

3) **Third Level Prevention:** When long-term functional limitation has developed, measures instituted should aim at prevention of disability. Such measures may be divided into medical, psychosocial, educational and vocational. Third level prevention of locomotor disability aims at enabling the individuals to perform the varying roles expected by the family, community and society at large to the extent possible and thereby restore the patient back to normal or near normal condition.

The measures include training to increase independence in self-care, educational and vocational measures aimed at achieving economic independence and psychosocial measures aimed at restoration of personal dignity and to ensure full integration and acceptance in the community.

1.6.7. Education of Locomotor Impaired Children

The following way can be adopted for the locomotor impaired children:

- 1) The teacher should accept such children in the same way he accepts other children,
- 2) The teacher should avoid sarcasm aimed at the disability of the child,
- 3) Other children should be advised to appreciate the disability and show due regard to such children,
- 4) Seating arrangement in the class may be adjusted to the specific needs of such students,
- 5) Recreational opportunities for participation in recreational activities, sports and games should be provided to these children, and
- 6) Remedial teaching may also be arranged for them.

1.6.8. National Health Programme for Prevention of Locomotor Impairment

The Government of India has taken several measures towards locomotor disability prevention. Research in areas of prevention of disability, screening of risk cases, provision of training to medical and paramedical personnel and provision of awareness campaigns on causes and prevention of locomotor disability, are some of the important actions taken. Also, National Health Programmes which have a direct bearing on the prevention of locomotor disabilities are being implemented. They include:

- 1) Universal Immunisation Programme,
- 2) National Leprosy Eradication Programme,
- 3) National Tuberculosis Control programme,
- 4) National AIDS Control Programme,
- 5) National Cancer Control Programme,
- 6) Child Survival and Safe Motherhood Programme.

1.7. NEUROLOGICAL DISORDERS

1.7.1. Meaning of Neurological Disorders

Neurological disorders are the diseases that affect the brain and the central and autonomic nervous systems. For example, the brain, spinal cord, cranial nerves, peripheral nerves, nerve roots, autonomic nervous system, neuromuscular junction, and muscles are come under nervous system that can be affected by many factors. These disorders include epilepsy, Alzheimer disease and other dementias, cerebrovascular diseases including stroke, migraine and other headache disorders, multiple sclerosis, Parkinson's disease, neuroinfections, brain tumours, traumatic disorders of the nervous system due to head trauma, and neurological disorders as a result of malnutrition.

Many bacterial, (i.e. Mycobacterial tuberculosis, Neisseria meningitidis), viral (i.e. Human Immunodeficiency Virus (HIV), Enteroviruses, West Nile Virus, Zika), fungal (i.e. Cryptococcus, Aspergillus), and parasitic (i.e. malaria, Chagas) infections can affect the nervous system. Neurological symptoms may occur due to the infection itself, or due to an immune response.

There are over 600 known neurological disorders and conditions that affect the human nervous system and for many of them treatment options are extremely limited.

1.7.2. Types of Neurological Disorders

There are many types of neurological disorders, including:

- 1) Alzheimer's disease (AD),
- 2) Epilepsy,
- 3) Multiple sclerosis,
- 4) Parkinson's disease, and
- 5) Migraines.

1.7.3. Causes of Neurological Disorder

There are various causes of neurological disorders such as follows:

- 1) **Gene Abnormalities:** Genetic factors can influence the development of a variety of neurologic disorders that are typically inherited from parents through genes and chromosomes. Genes are responsible for determining characteristics. Changes in genes (called mutations) therefore change characteristics. Some mutations cause abnormalities that are damaging to individuals (for example, cystic fibrosis). Mutations can be passed onto offspring affecting their characteristics.
- 2) **Metabolic Disorders:** Metabolism refers to the chemical processes that occur in the body. Metabolic disorders can cause lasting damage and must be identified as early as possible (e.g., through blood or urine tests). Examples of metabolic disorders include Phenylketonuria (PKU) and homocystinuria. Many metabolic disorders are detected at birth as blood samples are sent for 'universal newborn screening'.

- 3) **Toxins and Environmental Factors:** Neurotoxins can enter and damage a child's developing system through the placenta during fetal development. Consequently a child may develop intellectual and behavioral problems. Neurotoxins include alcohol (linked to fetal alcohol syndrome), lead (linked to intelligence, learning and memory problems), mercury (linked to learning and development disorders), tobacco (linked to challenging behaviors and developmental impairments) and some food additives (linked to higher rates of ADHD in children).
- 4) **Nutritional Deficiencies:** Nutrients are needed for growth. A deficiency of nutrients during the last three months of pregnancy can decrease the number of brain cells. A deficiency of folic acid (a B vitamin) could lead to a neural tube defect (NTD), e.g., spina bifida (open spine).
- 5) **Infections:** TORCH infections, including sexually transmitted infections, can be passed from mother to baby during pregnancy. As reflected by the letters in the name, TORCH infections include Toxoplasmosis, Other infections (hepatitis B, syphilis, varicella-Zoster virus, HIV and Parovirus B19), Rubella, Cytomegalovirus and Herpes simplex virus. These infections can cause developmental abnormalities in the unborn child. Chorioamnionitis can be a cause of cerebral palsy.

1.8. LEARNING DISABILITY

1.8.1. Learning Disability

A learning difficulty also referred to as a learning disability can be described as an issue with the brain's ability to process information. Individuals who have a learning difficulty may not learn in the same way or as quickly as their peers, and they might find certain aspects of learning, such as the development of basic skills to be challenging.

A learning disability is a general term that describes specific kinds of learning problems that cause a person to have difficulty acquiring certain skills. The skills most often affected are reading, writing, math, listening, speaking, and reasoning. The term does not include learning problems that are primarily the result of visual, hearing, motor disabilities, mental retardation, emotional disturbance, or environmental, cultural, or economic disadvantage.

The term "learning disability" is used to describe the seeming unexplained and unexpected difficulty a person has in acquiring basic academic skills. These skills are essential for success at school and work, and for coping with life in general. A learning disability is not a single disorder. It is a term that refers to a group of disorders. Learning disabilities are characterised by a gap between the level of achievement that is expected and what is actually being achieved.

According to Sheldon Horowitz, Ed. D, "A learning disability is a neurological disorder that affects the brain's ability to receive, process, store, and respond to information."

Learning disabilities are associated with problems in listening, reasoning, memory, attention, selecting and focusing on relevant stimuli, and the perception and processing of visual and/or auditory information. These perceptual and cognitive processing difficulties are assumed to be the underlying reason why students with learning disabilities experience one or more of the characteristics, such as reading problems, deficits in written language, underachievement in math, poor social skills, attention deficits and hyperactivity, and behavioural problems.

1.8.2. Characteristics of Learning Disabled Children

The characteristics of learning disabled children are given below:

- 1) Students with learning disabilities exhibit deficits in social skills. Poor social skills often lead to rejection, low social status, fewer positive interactions with teachers, difficulty making friends, and loneliness—all of which are experienced by many students with learning disabilities regardless of classroom placement.
- 2) Some students with learning disabilities, however, experience no problems getting along with their peers and teachers.
- 3) Some students with learning disabilities display behavioural problems in the classroom.
- 4) A learning disability is a processing disorder which affects the ability to understand or use language, and may result in difficulties in listening, thinking, speaking, reading, writing, spelling, and mathematics.
- 5) Students with learning disabilities usually have average or above average intelligence.
- 6) There seems to be a gap between the student's ability and actual achievement.
- 7) Difficulty with reading is by far the most common characteristic of students with learning disabilities.

1.8.3. Types of Learning Disabilities

Following are the main types of learning disabilities:

- 1) **Dyscalculia:** Dyscalculia is a specific learning disability that affects a person's ability to understand numbers and learn math facts. Individuals with this type of LD may also have poor comprehension of math symbols, may struggle with memorising and organising numbers, have difficulty telling time, or have trouble with counting.
- 2) **Dysgraphia:** This learning disability affects a person's hand writing ability and fine motor skills. Problems may include illegible handwriting, inconsistent spacing, poor spatial planning on paper, poor spelling and difficulty in composing writing as well as thinking and writing at the same time.
- 3) **Dyslexia:** It affects reading and related language based processing skills. The severity can differ in each individual but can affect reading fluency, decoding, reading comprehension, recall, writing, spelling and sometimes speech and can exist along with other related disorders. Dyslexia is sometimes referred to as a language based learning disability.

- 4) **Dysnomia:** It is also known as word finding problem. The child keeps stumbling over words that he cannot remember at the moment.
- 5) **Dysarthria:** This disability includes slurred speech and sounding hoarse.
- 6) **Aparxia:** In this the person seems to be trying very hard to speak, talk slowly and have greatest difficulty with starting.
- 7) **Attention Deficit Hyperactivity Disorder (ADHD):** ADHD is a disorder that includes difficulty staying focused and paying attention, difficulty controlling behavior and hyperactivity.

Although ADHD is not considered a learning disability, research indicates that from 30-50 percent of children with ADHD also have a specific learning disability, and that the two conditions can interact to make learning extremely challenging.

1.8.4. Functional Limitations of Learning Disabled Children

Functional limitations of these children may include:

- 1) Academic problems,
- 2) Disorders of attention,
- 3) Poor motor abilities,
- 4) Psychological process deficits and information-processing problems,
- 5) Lack of cognitive strategies needed for efficient learning,
- 6) Oral language difficulties,
- 7) Reading difficulties,
- 8) Written language problems,
- 9) Mathematical disorders, and
- 10) Social skill deficits.

1.8.5. Causes of Learning Disabilities

Causes of learning disabilities include:

- 1) **Heredity:** Often, learning disabilities run in the family, so it's not uncommon to find that people with learning disabilities have parents or other relatives with similar difficulties.
- 2) **Problems during Pregnancy and Birth:** Learning disabilities may be caused by illness or injury during or before birth. It may also be caused by low birth weight, lack of oxygen, drug and alcohol use during pregnancy, and premature or prolonged labour.
- 3) **Incidents after Birth:** Head injuries, nutritional deprivation, and exposure to toxic substances (i.e., lead) can contribute to learning disabilities.

Learning disabilities are not caused by economic disadvantage, environmental factors, or cultural differences. In fact, there is frequently no apparent cause for learning disabilities.

1.8.6. Educational Provision for Children with Educational Disability and Learning Disability

IDEA has several key requirements, as follows:

- 1) **Free Appropriate Public Education:** States and local school districts must offer inclusive education to all children with disabilities between the ages of 3 and 21 years.
- 2) **Identification and Evaluation:** States and school districts must identify, locate, and evaluate all children with disabilities, without regard to the severity of their disability, to determine their eligibility and need for special education and related services. This requirement is referred to as "child find", and the principle is known as "zero reject", meaning that no child can be denied an education
- 3) **Individualised Education Programme:** Each child with a disability who is deemed eligible will receive an Individualised Education Programme (IEP) describing his or her specific educational and service needs, with parent participation on the IEP team. Individualised Family Service Plans (IFSPs) are used for infants and toddlers.
- 4) **Least Restrictive Environment:** Children with disabilities must be educated with children without disabilities "to the maximum extent possible" in the Least Restrictive Environment (LRE).
- 5) **Due Process Safeguards:** Procedural safeguards must be put in place for children and their families, including the right to mediation, request for complaint investigation, and/or a due process hearing; the right to appeal to a federal district court; and, if they prevail, the right to receive attorneys' fees.
- 6) **Parent and Student Participation and Shared Decision-Making:** Schools must collaborate with parents and students with disabilities in the design and implementation of special education services. The parents' (and, whenever appropriate, the student's) input and wishes must be considered in IEP goals and objectives, related-service needs, and placement decisions.

1.9. MULTIPLE DISABILITY

1.9.1. Meaning of Multiple Disabilities

Multiple disabilities encompass a combination of conditions that may impact a student's ability to learn and achieve success in an academic setting. Students with severe disabilities are typically included under this umbrella terminology.

Multiple disability is a combination of two or more disabilities as defined in clause (i) of Section 2 of the Person with disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, namely, blindness/low vision, speech and hearing impairment, locomotor disability including leprosy cured, mental retardation and mental illness.

According to IDEA, "Multiple disabilities means concomitant (simultaneous) impairments, such as intellectual disability-blindness, intellectual disability-orthopaedic impairment, etc., the combination of which causes such severe educational needs that they cannot be accommodated in a special education programme solely for one of the impairments. The term does not include deaf-blindness."

According to Joint Community Service Project, Multiple disabilities refer to any combination of two or more types of disabilities. There are some conditions that consist of two types of disabilities sometimes, although medically, they are in fact individual condition with varying syndromes. An example is cerebral palsy, which is a condition that affects control of movement but is usually accompanied by mental impairment.

According to Fewell and Cone, "Any definition of individuals with multiple and severe disabilities would certainly include children often classified as deaf, blind, multiple disabled, autistic, schizophrenic, and mentally retarded, but is no way would it be limited to these groups."

In other words, a student whose special needs are categorised under multiple disabilities requires coinciding adaptions for more than one disability. The exception is the combination deafness and blindness, as this pair of impairments has its own classification under IDEA.

The multiple disability categories represent a wide range of specific conditions and impairments. The best places for a classroom teacher to learn about their individual student with multiple disabilities are past assessments and Individualised Education Programmes. The next step in learning about the student is to form a relationship with the student's parents, as they are really the greatest experts on the capabilities of their child.

However, children with multiple disabilities will typically share deficits in five distinct areas of development – intellectual functioning, adaptive skills, motor skills, sensory functioning, and communication skills.

People with multiple disabilities have a combination of various disabilities that may include speech, physical mobility, learning, mental retardation, visual, hearing, brain injury; and possibly others. They may also have sensory losses and behavior and /or social problems. Perhaps the most significant characteristic of many people with multiple disabilities is deficits in the area of communication, making it difficult for them to communicate their wants, needs, and pains to those around them.

1.9.2. Characteristics of Multiple Disabilities

Following are the main characteristics of multiple disabilities:

- 1) **Vision Problems:** As children grow, some of them appear to always squeeze their eyes together to look at something closely, or keep looking at their moving fingers/paper, bump into things while walking, complain of too much light all the time. Their eyes may also look different from 'normal' eyes.

- 2) **Hearing Problems:** A child with hearing problem may respond to only particular sounds. They may take a long time and repeated training to develop speech. And mostly they may only repeat what they hear. They may also learn to adapt to their routine environment by 'guessing' the conversations going around, but may actually face a lot of difficulty in a new place with unknown people. Sometimes deaf children also show difficulty in balancing their body or walking in a straight line.
- 3) **Learning Problems:** Due to the combined loss of two or more disabilities, the rate and speed of learning of the children is very slow. Learning often becomes repetitive and meaningless, unless special care is taken to make the child feel safe about exploring the world around him. Multi-handicapped children also have very limited ideas to play with toys or things around them.
- 4) **Communication:** Communication is probably the one area that is most significantly affected in children with multiple disabilities. The children are unable to see or hear or follow the different ways in which their brother and sister play with each other, elders are greeted, standing in a line to get a ticket or passing a bottle of water around a dining table.
- 5) **Posture and Mobility:** Our sight, hearing and body movements help us to move around, without bumping into things, remember the way to reach places or even to use our own hands to hold and look at things. Presence of Cerebral Palsy, locomotor disabilities and balance difficulties makes it hard for the child to manage his own body movements sometimes and so it becomes very difficult to use his body to move from one place to another.
- 6) **Odd Behaviours:** Most children with multiple disabilities show strange behaviours that are called 'self-stimulating behaviours'. Some of these are moving one's body repeatedly, shaking head side to side, moving fingers in front of eyes, hitting or slapping the ears, swinging in one place and so on. The children mostly do this due to lack of anything else to do. Sometimes it is important for them to continue doing it from time to time as it helps them get some information about the world around them in their own special way. Sometimes these children also show disturbed sleep patterns.
- 7) **Medical Conditions:** Most multi-handicapped children also suffer from other medical conditions such as epilepsy, frequent eye and ear infections, respiratory disorders, muscular degeneration frequent surgeries and so on. Such medical conditions lead to frequent hospitalisations and the child again misses out on a lot of exposure and learning from the environment.
- 8) **Prevalence:** The percentage of students having severe multiple disabilities is very low. Approximately 0.1 to 1 per cent of the general school-age population and approximately 2 percent of the total population of school age students have severe and multiple disabilities. It is not likely that more than one student with severe multiple disabilities would be enrolled in a general classroom at any given time.

1.9.3. Types/Forms of Multiple Disabilities

Children with multiple disabilities as already emphasised, may constitute a highly diversified group of disabled population, each often having a combination of two or more obvious and not so obvious disability. Their so diversified multiple disabilities may however, be grouped as below:

- 1) **Coinciding Disabilities which are Inevitably Casually Linked:** In this children may be affected with such coinciding disabilities, in which one disability may be a natural cause for the evolution or eruption of another disability, e.g., deafness results in speech disorders.
- 2) **Coinciding Disabilities which are not Linked by a Casual Factor:** The children may be affected with such coinciding disabilities in which none of these disabilities is a result of the other, e.g., blindness and deafness.
- 3) **Coinciding disabilities which are not Inevitably Related:** In this children may be affected by such coinciding disabilities in which one disability may or may not be result of another. For example, learning disability and emotional disturbance or other behavioural disorders.

1.9.4. Impact on Learning of Multiple Disabilities

The impact of Multiple Disabilities may be seen on various conditions such as follows:

- 1) Most of the students served under the multiple disability categories do have some level of cognitive impairment, but the specific diagnosis of this impairment can often be ambiguous or undetermined. The ability levels of these students can vary widely, from functional academics to basic life skills. However, most of these students are still quite capable of learning at their own level when provided the appropriate supports and materials.
- 2) While developing age-appropriate adaptive skills is a challenge for students with multiple disabilities, their ability to learn can help provide them with some level of independence in a number of life skills areas. Appropriate educational programming for these students should include self-care and self-advocacy components, as these skills are absolutely essential for their inclusion in the community.
- 3) Deficits in motor development can impact independence in these self-care areas and can also force limitations on mobility and access to the environment. These deficits may be a result of poor muscle tone or an unavoidable aspect of the specific condition. Physical therapy in conjunction with orthopedic supports may be necessary to ensure independent travel.
- 4) Sensory impairments may also be present in students with multiple disabilities, and knowing the specifics of their hearing and/or visual impairment is absolutely essential to the development of an appropriate instructional program. Refer to the specific category sections on these impairments for more detailed information on the potential impact on learning caused by sensory impairments.
- 5) Perhaps most importantly, students with multiple disabilities have deficits in the area of communication, making it difficult for them to communicate their

wants, needs, and pains to those around them. This limitation can be devastating to the emotional and intellectual development of the child, but can be addressed through the use of assistive technology and augmentative communication systems.

1.9.5. Teaching Strategies for Multiple Disabilities

Determining an appropriate educational programme for a student with multiple disabilities can be a daunting task due to the variety of pervasive supports needed by these students. The planning process should be a multidisciplinary process, including parents, teachers, physical therapists, assistive technology teachers, and any number of additional support staff. Of course, at the center of the planning process should be the student, and the strengths and desires of the student should guide the entire process. Specific steps to success need to be identified, and timelines set for each educational objective. In addition, resources and supports needed for the student to achieve his goals should be defined and addressed.

- 1) Early intervention is necessary as soon as the child begins school,
- 2) Involvement of the appropriate professionals, i.e., occupational therapists, speech/language therapists, physiotherapists, etc.,
- 3) A team approach at the school level involving external agency/community liaison who meet on a regular basis is essential,
- 4) The physical arrangement of the classroom will need to best accommodate this child. Consideration of special equipment and assistive technology is essential,
- 5) Integration among their peers is important to assist these students with social development. It's important to integrate multiple disabled children as much as is possible. Research does indicate that when these students attend their community school and participate in the same activities as their peers social skills develop and are enhanced. (Sometimes these students are placed full-time in a regular classroom with support, however, in the majority of cases, these students are placed in a developmental skills type of classroom with some integration,
- 6) Ensuring that all students demonstrate respect for the multiple disabled student-becomes a teacher responsibility and needs to be taken seriously with on-going activities that develop respect from the other students in the class,
- 7) An Individual education plan will need to be carefully planned out and adjusted on a regular basis and will need to be aligned to the child,
- 8) Remember, these children are often completely dependent on others for most/all of their daily needs,
- 9) Assistive technologies may assist this child and the support team will need to decide which assistive technologies will be most appropriate,
- 10) A safety plan will need to be developed and is often included in the IEP, and
- 11) Care needs to be given in your expectations of this student to ensure the child doesn't become frustrated.

Most importantly, these identified children are to be given the same rights as non-identified school age children including screening, evaluation and an appropriate program and services.

1.10. INCLUSIVE EDUCATION

1.10.1. Concept of Inclusive Education

Education is one of the powerful tools to develop a sense of equality and brotherhood among the students irrespective of their gender, caste, creed, religion, socio-economic status, race and ability. Due to deficiency of knowledge, educational approach and technology, disabled children were initially treated as unwanted and faced separation from other children. Later their education was carried-out in special schools. Inclusion is an educational approach and philosophy that provides all students with community membership and greater opportunities for academic and social achievement.

The concept of inclusive education has been spelt out in the Salamanca statement and the Framework for Action on Special Needs Education, 1994. In recent times there has been a shift towards having children with disabilities attend the same schools as non-disabled children. Reason of special needs education in 1994 is that governments have been urged to "adopt" as a matter of law and policy, the principle of inclusive education, enrolling all children in regular schools unless there are compelling reasons for doing otherwise. The basic premise is that the school should meet the educational needs of all children irrespective of their disabilities or limitations.

In inclusive education brilliant child and disable child all time study or learn together. Like this adjustment, socially or educationally both are gathered. Some academicians think inclusive education should be established in all normal schools.

Inclusion as a social and educational philosophy believes that all people are valuable members of mainstream society, whatever their differences and diversities may be in education. This implies that all children irrespective of their abilities and disabilities, socio-economic background religion or ethnic, language or cultural background, religion and gender go together to the same school. It is the philosophy that aims to improve the quality of education. It reflects on human rights and social justice. It is a way to reach out all the children. It does not look at whether children are able to follow the regular educational system but looks at teachers and schools in terms of how they can adopt educational programmes to individual needs.

The guiding principle that informs this framework is that – schools should accommodate all children regardless of their physical, intellectual, social and emotional, linguistic or other conditions. This should include disabled and gifted children, street and working children, children from remote and nomadic population, children from linguistic, ethnic or religious minorities, and children from other disadvantaged or marginalised areas or groups.

Thus, inclusive education means an education where each child, whether he/she is disable or normal, without any discrimination all together under one roof in one school with all needed techniques and ingredients, come to know and learn how to fulfil their needs. Inclusive education is not made for only disable person rather its main aim is to spread education equally to all children.

1.10.2. Meaning and Definition of Inclusive Education

'Inclusion' is a word which literally means 'to include'. It contains, in addition, to take in or consider as a part of a group. Today's inclusive education talks about including all students in general schools. It ensures one school for all, equal education for all and providing equal opportunity to all. Thus, inclusive education means including not only children with diverse background and abilities in a common school but also including children with disabilities to their maximum potential.

According to Michael F. Fiangrace, "Inclusive education is a set of values, principles and practices that sets more effective and meaningful education for all students, regardless of whether they have exceptionality labels or not."

According to Stainback and Stainback, "Inclusive school or set-up may be defined as a place where everyone belongs, accepted, supports and is supported by his or her peers and other members of the school community in the course of having his or her educational needs."

According to UmaTuli, 2008, "Inclusion is a process by which a school expands its resources to meet the learning needs, physical needs and emotional needs of all children."

UNESCO defines inclusive education as "a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision which covers all children of the appropriate age range and a conviction that it is the responsibility of the state to educate all children."

According to Lindsay, "It is championed as a means to remove barriers, improve outcomes, and remove discrimination. Inclusive is however a complex and contested concept and its manifestations in practice are many and various."

According to National Commission on Special Needs in Education and Training (1997), "Inclusive education is defined as a learning environment that promotes the full personal, academic and professional development of all learners irrespective of race, class, gender, disability, religion, sexual preference, learning styles and language."

Inclusive education is primarily an attitude, a value, and a belief system, not merely a set of action. The word 'include' implies being a part of something, being embraced into the whole. The ultimate goal of inclusive quality education is to end all forms of discrimination and foster social cohesion.

1.10.3. Characteristics of Inclusive Education

Characteristics of inclusive education are as follows:

- 1) **Inclusive Education is not only for Disabled Children:** The main concept of inclusive education is not only to educate children with disability but without disability also. Equal educational opportunities provided to the children with disability and without disability.
- 2) **Inclusive Education is Opposition of Segregation:** Inclusive education is contrast of segregation. Segregation is based on the concept that the children with disability should accommodate in special schools, while inclusive education focuses on to integrate all.
- 3) **Welcome to All Students:** All students are welcomed in general educational classroom. The general education classroom is the first option considered, regardless of disability type or severity.
- 4) **Identification of Diversity:** Inclusive education is concerned with identifying children from different backgrounds such as children with ability and disability. It accepts unconditionally all children into regular classes and the life of the school. Looking at all children at what they can do rather than what they cannot do.
- 5) **Equal Place in Classes:** Students are educated in classes where the percentages of those with and without disabilities are proportional to those percentages in the local population.
- 6) **Participation of Parents and Society:** Students are educated with peers in the same age groupings available to those without disability labels.
- 7) **Equal Opportunity of Education:** The main idea of inclusive education is that all students should provide equal opportunity of education. Students with varying characteristics and abilities participate in shared educational experiences while pursuing individually appropriate learning outcomes with necessary supports and accommodations.
- 8) **Providing a Quality Education:** Having principal, teachers, parents and other work together to determine the most effective ways of providing a quality education in an inclusive environment.
- 9) **Provide an Appropriate Ambience:** Inclusive education provides least restrictive ambience for special children so that they can learn as normal child.
- 10) **Create Sense of Belongingness:** Inclusive education focused on creating a sense of belongingness among the students. It creates a healthy environment among the able and disabled children.
- 11) **Accommodations are Available to All Students:** All students have strengths and needs that result in different ways that they effectively access instruction and assessment. Ideally, need would be the major determinant of whether accommodations were used with any student (with or without identified disabilities), both for instruction and assessment. Reasonable decisions need to be made about certain accommodations that may be used

for instruction that are not appropriate for assessments because they confound the construct being measured; it is also possible that some accommodations are appropriate for assessment but not for instruction.

12) **It is a Matter of Civil Rights:** Students with disabilities have a legal right to attend regular classes and receive an appropriate education in the least restrictive environment.

1.10.4. Objectives of Inclusive Education

Important objectives of inclusive education are as follows:

- 1) To appraise with the existing diversity and understand the children with special needs,
- 2) To familiarise with the concept of inclusive education and to be able to reflect and discuss it with the fellow teachers,
- 3) To familiarise with different categories with special needs,
- 4) To deliver special needs and inclusive education services in a coordinated and adequately resourced manner,
- 5) To understand the role as a general teacher for making inclusion a success,
- 6) The government has to:
 - i) Give the highest policy and budgetary priority to improve their education system to enable them to include all children regardless of individual difference or difficulties.
 - ii) Adopt as a matter of law policy, the principle of inclusive education, enrolling all children in regular schools unless there are compelling reasons for doing otherwise.
- 7) The training programmes for the teachers have to be included in the education of disabled children, and
- 8) The children should have access to general education system to expand the coverage to reach the unreachable population.

1.10.5. Need of Inclusive Education

Our classrooms are diverse in terms of the types of children we teach and the ways the learners learn. Diverse classrooms have benefited to all learners and teachers. Children have different experiences, skills, knowledge, values to abilities. All children contribute and bring some ingredients to the teaching-learning process of the classroom. We live in a society of increasing diversity where success will come to those who learn to work and live comparatively with others. Every school has to accept inclusion as a basic value.

Inclusive education means including not only children with disabilities in the classroom but all children with diverse background and abilities. Actually getting these children into one classroom is only half of the challenge. The other half is in meeting of all of their different learning needs as well as in giving special attention to those children who are usually excluded from the classroom or from participating in the classroom. Children learn in different ways because of

hereditary factors, experience, environment and their personalities. Consequently, we need to use a variety of teaching methods and activities to meet the different learning needs of our children.

The basic concept of giving equal opportunity and access to all children does not merely mean treating everyone as the same. This will not act to address the diverse needs. Equality of educational opportunity requires an understanding of the conditions for success where children with diverse needs will be given more support or additional provision in order to have an equal chance, access to success and achievement in general classroom.

In order to ensure that this happens we need to foster inclusive classrooms in inclusive schools, which may fulfill the following needs:

- 1) For universalisation of education,
- 2) For development of nation,
- 3) Realisation of social equality,
- 4) Development and empowerment of society,
- 5) Utilisation of new technologies in education,
- 6) Development of desirable qualities for good citizenship,
- 7) Development of child's individual life,
- 8) Important role of family and society,
- 9) Protection of 'Rights of All',
- 10) For social consciousness,
- 11) For improvement in the quality of education,
- 12) For all round development of child, and
- 13) Development of positive point of view towards life.

1.10.6. Importance of Inclusive Education

Normal

Here are key findings about the benefits of inclusion for children and families:

- 1) **Families' Vision of a Typical Life for their Children can Come True:** All parents want their children to be accepted by their peers, have friends and lead (regular) lives. Inclusive setting can make the vision a reality for many children with disabilities. *NORMAL ROUTINE LIFE*
- 2) **Children Develop a Positive Understanding of Themselves and Others:** When children attend classes that reflect the similarities and differences of people in the real world, they lead to appreciate diversity, respect to understanding grow when children of different abilities and cultures play and learn together. *POSITIVE ATT TOWARDS LIFE*
- 3) **Develop Friendship:** Schools are always an important place for children to develop friendship to learn social skills. Children with and without disabilities learn with and from each other in inclusive classes.
- 4) **Children Learn Important Academic Skills:** In inclusive classrooms, children with/without disabilities are expected to learn to read, write and do math, with higher expectations and good instruction for children with disabilities.
- 5) **All Children Learn by being Together:** Because the philosophy of inclusive education is aimed at helping all children to learn from everyone in the class. Children learn at their own way and style within a nurturing, and learning environment.

FEELING OF TOGETHERNESS

1.10.7. Basic Elements of Inclusive Education

Elements of inclusive education are as follows:

- 1) **Human Right Issue:** Education for all implies that education is every child's right. And, when we say 'All' it includes every child and not a few of them.
- 2) **Togetherness:** Inclusive education enables children (capable as well as incapable) to participate together in society right from the beginning. It enables them to contribute to social harmony and to stimulate the building relationships among people, groups and nations.
- 3) **Education for All in a School for All:** It implies that, capable as well as incapable students seek education in a general school together, to learn to know, learn to do, and learn to live together.
- 4) **Breaking Barriers:** In consequences of inclusive education, familiarity and tolerance reduces fear, prejudices and rejection.

1.10.8. Assumptions of Inclusive Education

Assumptions of inclusive education are as follows:

- 1) Education is the fundamental right of every child,
- 2) Every child and every adult is the part of our society,
- 3) Every child is special in one or the other way,
- 4) Each and every child is equally important and has an equal opportunity to participate when society provides resources for their development,
- 5) The real objective of education is not only the cognitive development but, overall development of the child,
- 6) This is a continuous process and not a static state,
- 7) The place for education is not only school but society also, and
- 8) The education is only relevant when it is barrier free.

1.10.9. Process of Inclusive Education

The concept of integrated or inclusive education represents the latest trend in the provisions of placement or alternative programmes suggested in the field of education to the disabled children. It runs quite contrarily to the ideas and philosophy related to institutionalisation, separation or segregation. The democratic systems all over the world, are equally wedded to the principle of providing equal opportunities to learn and grow all its members without any type of discrimination. The philosophy of integration or inclusion thus in fact has its roots in the ideas and principles governed through equity and equality of opportunities to all without differentiation and discrimination.

Following may be considered the main processes which come across to inclusive education, such as:

- 1) **Deinstitutionalisation:** This is antithesis of the term institutionalisation and a signal for calling a stop to the practice of institutionalising a disabled child in the name of caring and treating him for his disability. It means removing the disabled persons from the institutions and place them in alternative environments.

Without institution, education is a process in which boundaries of children and students are decreased or cut out, which gain education from the residential institution, to gain education different opportunities are provided to them. They have freedom to learn and study in residential institution. The philosophy of deinstitutionalisation was responsible for the initiation of normalisation movement.

2) Normalisation: This term refers to making the education and living environment of the disabled child as close to normal as possible. The main purpose of normalisation is that disabled child should feel as normal as possible with the environment of his education and living.

The normalisation principle means making available to all people with disabilities pattern of life and conditions of everyday living which are as close as possible to the regular circumstances and ways of life or society. Normalisation is a rigorous theory of human services, often applied in disabilities, however, with a base in the early 1970s, pre-deinstitutionalisation period in the U.S.; however, it is one of the strongest and long-lasting integration theories in severe disabilities in the world. Normalisation involves the acceptance of some people with disabilities, with their disabilities offering them same conditions as are offered to other citizens. It involves the normal conditions of life – housing, schooling, recreation, employment, exercise, and freedom of choice previously denied to individuals with severe, profound or significant disabilities. It involves an awareness of the moral rhythm of life – including the moral rhythm of a day, a week, a year and the lifecycle itself.

Normalisation has given birth to the concept of least restrictive environment and mainstreaming. Least Restrictive Environment (LRE) refers to reducing or minimising the restrictions imposed by the environment on the learning and living of a disabled child to the maximum extent possible. This setting of LRE will be closest to a normal environment of learning and living available for the adjustment and education of the non-disabled/normal peers.

In this process of inclusive education, a variety of terminology have been in used over the last three decades to call a halt for the institutionalisation and segregation of disabled students and directing the efforts for educating them with their non-disabled peers. Most often used terms as deinstitutionalisation, normalisation, least restricted environment, integrate mainstreaming and inclusion can be taken as steps in the process of inclusive education.

3) Integration: This term is antithesis of segregation. It called salt to the system of providing education to the children in segregating settings of special schools and advocated to make provision for their education in the regular schools. So integration is the term carried for describing their successful placement into regular schools. This philosophy of integration can be called a proper step in putting the disabled children into the mainstream, i.e., the place and opportunities of getting education and training with the population of non-disabled peers in the regular schools.

4) **Mainstreaming:** Mainstreaming, in the context of education, is the practice of educating students with special needs in regular classes during specific time periods based on this skills. This means regular education classes are combined with special education classes. Schools that practices mainstream believe that students with special need who cannot function in a regular classroom to a certain extent "belong" to the special education environment.

According to Kauffman, *et al.* (1975), Mainstreaming refers to the temporal, instructional and social integration of eligible exceptional children with normal peers.

Access to a special education classroom, often called a "self-contained classroom or resource room", is valuable to the students with a disability. Students have the ability to work one-on-one with special education teacher, addressing any need for remediation during the school day.

5) **Inclusion:** It describes much more than the acceptance of children with disabilities in the mainstream. Inclusive education programmes do not focus on the accommodation of these children into a general education setting, but focused on the re-structuring of schools to accept and provide for the needs of all students. Inclusion provides specialised instruction and support to any student who is in need of support without labelling him as disabled or exceptional. No discrimination is made among the disabled and non-disabled children. At time children in all forms of their exceptionality/disability are welcome by making necessary arrangements and accommodations for their education in the same school and classes alongwith their non-disabled peers.

Inclusion in education was once described as an approach where in students with special educational needs to spend most or all of their time with non-disabled students. Now it is crucial that all policy-makers, school boards, administrators, guidance counsellors, teachers, parents and students ensure inclusive practice in all aspects of educational environments. Research suggests that inclusivity is no longer defined by physical and cognitive disabilities but also includes a full range of human diversity with respect to ability, language, culture, gender, age, and of other forms of human differences.

1.10.10. Difference between Traditional Approach and Inclusive Approach

Difference between traditional approach and inclusive approach may be understood under following table 1.3:

Table 1.3: Difference between Traditional Approach and Inclusive Approach

Traditional Approach	Inclusive Approach
1) Education for some ✓	Education for all ✓
2) static ✓	Flexible ✓
3) Collective teaching ✓	Individualised teaching ✓
4) Learning in segregated areas ✓	Learning in integrated areas ✓
5) Emphasis on teaching subject oriented ✓	Emphasis on child centred learning ✓
6) Diagnostic/prescriptive ✓	Holistic ✓

7) Opportunities limited by exclusion	Equalisation of opportunities for all
8) Disability view	Curricular view
9) Labels children disability wise	Planning is made on ability levels and opposes all kinds of labelling
10) Focus on students	Focus on the classroom
11) Assessment of students by specialist	Examine teaching/learning factors
12) Diagnostic/prescriptive programme	Collaborative problem solving
13) Placement in appropriate programme	Strategies for the teachers
14) Needs of special students	Adaptive and supportive regular classroom environments
15) Benefits to students with special needs of being integrated.	Benefits to students of including all.

1.10.11. Difference between Special Education, Integrated Education and Inclusive Education

These terms widely used in education system. These terms interchangeably used in inclusion.

1.10.11.1. Special Education

Special education is a form of instruction that is designed to meet the needs of students with disabilities, so that they can learn the same skills and information as other children in school. The term special education is used interchangeably with special needs, and the disabilities may be physical, emotional, or behavioural.

Special education refers to a range of educational and social services provided by the public school system and other educational institutions to individuals with disabilities who are between three and 21 years of age.

Special education is designed to ensure that students with disabilities are provided with an environment that allows them to be educated effectively. Disabilities that qualify for special education include physical disabilities, such as deafness or blindness; mental disabilities, such as down's syndrome and autism; medical conditions, such as oxygen dependence or traumatic brain injury; learning deficits, such as dyslexia; and behavioural disorders, such as Attention Deficit Hyperactivity Disorder (ADHD) and conduct disorders.

1.10.11.2. Integrated Education

Integration means disabled children or children with learning difficulties attending mainstream school. The child is accepted into the ordinary school, but is often taught in a separate classroom. The school makes minimal attempts to address any specific academic or social needs a child might have and the child must adapt them self to the environment. The child has little or no contact with his/her non-disabled peers.

Integrated education is the educational programme in which exceptional children attend classes with normal children on either a part or full time basis. It is placement of the disabled children in ordinary schools with some specialised

educational help and services. It does not necessarily integrate all the students who are away from the education for any reason like physically, mentally, socially deprived or because of any cast, creed, gender, race, ability, disability, life style, etc.

Integrated schools educate children in an environment where self-esteem and independence are developed as priorities. Self-respect and respect for others are strongly encouraged. The integrated ethos is nurtured to ensure inclusion of people from different religions, cultures, genders, abilities and socio-economic backgrounds.

Integrated education encourages open-mind attitudes among pupils as well as building the confidence and ability to question, observe, listen and make informed decisions. Integrated education recognises the value of parents and so parental involvement in all aspects of school life is actively encouraged. Parents are encouraged to take an active role in the governance of the school and the Parent's Council.

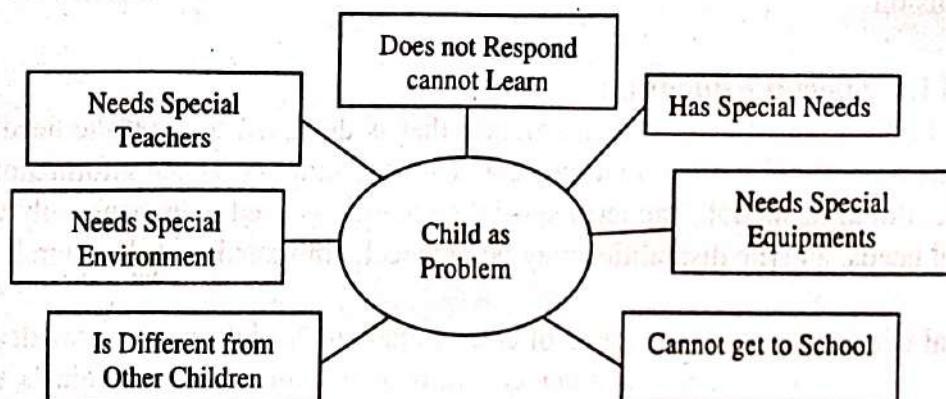


Figure 1.2: Integrated Education

1.10.11.3. Inclusive Education

Inclusive education can be defined as the process of increasing the participation of students in the cultures, curricula, and communities of local mainstream schools.

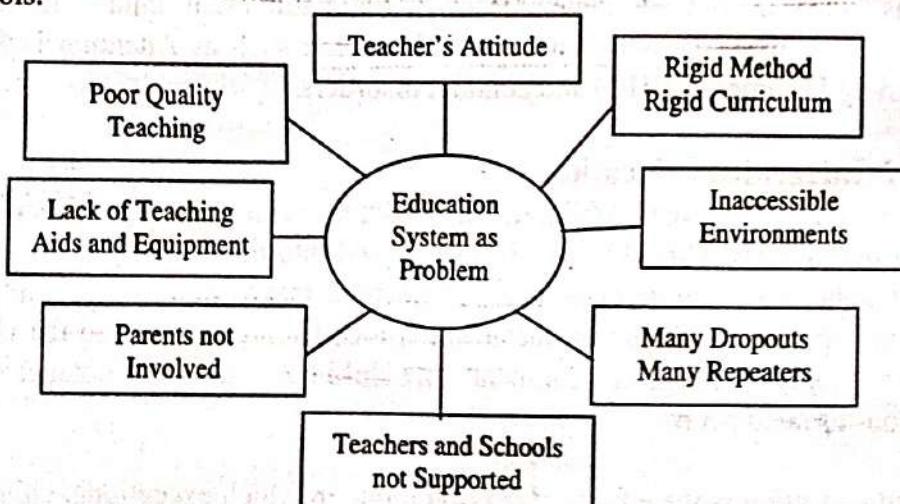


Figure 1.3: Inclusive Education

It includes all the students who are away from the education for any reasons like physically or mentally challenged, economically, socially, deprived or belonging to any caste creed, gender of etc. It is broader and wider concept than integrated education as it includes all the students in mainstream education. For inclusive education special planning can be done in mainstream education like special infrastructure, specially designed classes, special curriculum. Children with some special need can be made to sit in different classes or same classes with catering their needs. For example, visually impaired children can be provided with books in Braille.

The terms special education, integrated education and inclusive education comparatively used together. The difference between these can be seen in the basis of following points:

Table 1.4: Difference between special, integrated and inclusive education.

Table 1.4

Basis of Differences	Special Education	Integrated Education	Inclusive Education
Meaning	Special Education is "specially" designed instruction to meet the unique needs and abilities of exceptional students.	Integrated education means disabled children or children with learning difficulties attending mainstream school. The child is accepted into the ordinary school, but is often taught in a separate classroom. The school makes minimal attempts to address any specific academic or social needs a child might have and the child must adapt them self to the environment. The child has little or no contact with his/her non-disabled peers.	Inclusive education refers to schools, colleges, educational Institutes, centres of learning and other charitable centres that are open to all children including mentally retarded children, backward children, delinquent children, gifted children, slow learner, and under achievers.
Concept	Special education is relatively a new concept.	Integrated education is not relatively a new concept.	It is not much old concept too.
Objective	The single most important objective of special education is finding and capitalising on exceptional children abilities.	Integrated education can have their own criteria of integrating students with some disability or ability.	Inclusive education does not have their own criteria of including students as main aim to include all the students who are excluded from education.
Scope	Its scope is not much wider like both.	Its scope is not so wider because it does not necessarily integrate all the students who are away from the education for any reason like physically, mentally, socially deprived or because of any cast, creed, gender, race, ability, disability etc.	It is more broader and wider concept than integrated education as it includes all the students in mainstream education.

Importance	It is important for diverse need children.	It does not create a feeling of differentiation among disabled children. It ensures social integration.	Disabled or challenged students get motivated for learning.
Cost	It is expensive.	It is not much expensive as inclusive education.	It is very expensive.
Planning	Planning is required.	No formal planning is required.	Formal planning is required.
Facilities	Special infrastructure provision is required.	No special infrastructure, trained staff, and special curriculum is required.	Special infrastructure, trained staff, and special curriculum is designed for students.

1.10.12. Problems of Inclusive Education in India

There are many problems to the implementation of inclusive education:

1) **Skills of Teachers:** Teachers who are not trained or who are unwilling or unenthusiastic about working with differently-abled students are a drawback to successful inclusion. Training often falls short of real effectiveness, and instructors already straining under large workloads may resent the added duties of coming up with different approaches for the same lessons.

2) **Attitudes:** Societal norms often are the biggest barrier to inclusion. Old attitudes die hard, and many still resist the accommodation of students with disabilities and learning issues, as well as those from minority cultures. Prejudices against those with differences can lead to discrimination, which inhibits the educational process. The challenges of inclusive education might be blamed on the students' challenges instead of the shortcomings of the educational system.

3) **Physical Barriers:** In some districts, students with physical disabilities are expected to attend schools that are inaccessible to them. In economically-deprived school systems, especially those in rural areas, dilapidated and poorly cared for buildings can restrict accessibility. Some of these facilities are not safe or healthy for any students. Many schools don't have the facilities to properly accommodate students with special needs, and local governments lack either the funds or the resolve to provide financial help. Environmental barriers can include doors, passageways, stairs and ramps, and recreational areas. These can create a barrier for some students to simply enter the school building or classroom.

4) **Curriculum:** A rigid curriculum that does not allow for experimentation or the use of different teaching methods can be an enormous barrier to inclusion. Study plans that don't recognise different styles of learning hinder the school experience for all students, even those not traditionally recognised as having physical or mental challenges.

5) **Language and Communication:** Many students are expected to learn while being taught in a language that is new and in some cases unfamiliar to them. This is obviously a significant barrier to successful learning. Too often, these students face discrimination and low expectations.

6) **Socio-Economic Factors:** Areas that are traditionally poor and those with higher-than-average unemployment rates tend to have schools that reflect that environment, such as run down facilities, students who are unable to afford basic necessities and other barriers to the learning process. Violence, poor health services and other social factors create barriers even for traditional learners, and these challenges make inclusion all but impossible.

7) **Funding:** Adequate funding is a necessity for inclusion and yet it is rare. Schools often lack adequate facilities, qualified and properly-trained teachers and other staff members, educational materials and general support. Sadly, lack of resources is pervasive throughout many educational systems.

8) **Organisation of the Education System:** Centralised education systems are rarely conducive to positive change and initiative. Decisions come from the school system's high-level authorities whose initiatives focus on employee compliance more than quality learning. The top levels of the organisation may have little or no idea about the realities teachers face on a daily basis.

9) **Policies as Barriers:** Many policy makers don't understand or believe in inclusive education, and these leaders can stonewall efforts to make school policies more inclusive. This can exclude whole groups of learners from the mainstream educational system, thereby preventing them from enjoying the same opportunities for education and employment afforded to traditional students.

1.10.13. Ways of Supporting Inclusive Education in India

Ways of supporting inclusive education in India include:

1) **To Promote Positive Attitudes:** In all societies, there is a need to raise awareness that each child is unique and different, and that disabled children have the same rights, needs and aspirations as all children. Awareness work is important at all levels in society, family, community to counteract fear, misunderstanding and negative attitudes. The most effective way to do this is through participation by disabled people and children. Education officials, teachers and NGOs need to develop a sound understanding of disability as a social challenge.

2) **Promoting Inclusive Learning Environments:** Creating a welcoming and accessible environment in which children can learn is a major part of inclusive education. Children need to be able to travel safely to school, and be in a safe physical and social environment. They also need a caring and stimulating learning environment to understand what is being taught, and be able to interact with their peers and teachers. This may require the adjustment of teaching methods, materials, settings and timetabling, rather than adjusting the children to existing methods. Such adjustments will benefit education quality for all children not only those with a disability.

3) **Promoting Early Intervention:** It is widely recognised that the greatest impact in improving a disabled child's life can be achieved in early childhood (0-6 years). Appropriate early intervention will have a much greater impact, and be more cost-effective, than prolonged interventions later in life. This is

especially the case in preventing impairment from becoming more severe. In other words, the earlier the intervention, the greater the impact on the child's future development.

- 4) **To Promote Positive Role Models:** All girls and boys need positive role models. Positive adult role models are essential for the development of self-esteem and self-worth in children. Many disabled children, however, grow up never having met a disabled adult and so do not understand what growing up will mean for them. Disabled children may grow up more, isolated than children in other groups facing discrimination (for example, girls or children from ethnic minorities) because most disabled children are born to non-disabled adults, and most disabled adults give birth to non-disabled children. Disabled children do not, therefore, naturally come into contact with disabled adults or, necessarily, with other disabled children, and this needs to be addressed as part of the inclusion process.
- 5) **By Supporting Appropriate Policy Development:** Society's negative attitudes can often be translated into inappropriate national policy. It is rare that any effort is made to include disabled children in developing policies relevant to their needs. Such inappropriate policies can often be more disabling than the complete absence of policy, e.g., policies (common in central and eastern Europe) which support automatic institutionalisation to meet a disabled child's needs.
- 6) **By Supporting Change of System in Education:** The introduction of more inclusive practices in education necessitates change in curriculum, teacher-training, teaching methodology and teacher attitudes. Ideally, changes would take place prior to the inclusion of disabled children. But it would be unrealistic to wait for such changes to happen before introducing inclusive education.
- 7) **Developing an Inclusive Society:** To develop an inclusive society education acts as a powerful weapons for everyone belonging to any class. This helps in providing equal opportunities to each and every one in a democratic society. This also helps in spreading awareness related to adjustment, inclusion and coordination. Therefore, the concept of multi-layered educational system acts as a hindrance to inclusive education.
- 8) **By Government Support:** From last 20 and more years, government has specifically focused on the educational system of our country. They have planned various policies and programmes and have successfully implemented it at many places. Under the 'Sarva Shiksha Abhiyan' scheme, government has successfully able to set-up primary schools within every 1km and higher primary schools within 2km reach. This has been proved through facts too.
- 9) **Mobilising the Resources:** India is a resourceful country. We have many resources available which if used properly can be helpful for our education system. Varying from teaching-learning aids, teachers, institutes, books, classrooms desks, chairs, and everything else needs to be mobilised and channelised in a way that it gives maximum benefits.
- 10) **Collaborating with Parents, Community, Leaders, Teachers and NGOs:** Parents and communities are least aware of the ways and methods to educate

all as a single community without any discrimination. Apart from lack of awareness the collaboration between the parents, teachers and community is missing. They are not aware of what their children perform and do in schools and places. They have to track their children as they do not interact or collaborate with the institutes and the teachers concern in training their kids. The parents and teacher are especially responsible to interact amongst each other to know about the child's success, failure or progress in each and every field. From time to time, there should be meetings and counselling between them so that if anything is going wrong or inappropriate can be cured within time and it is not too late for the child to overcome.

- 11) **Proper Classroom Management:** The classroom should be divided into small coordinated groups. Tasks should be given in sequential steps. Teachers should provide as many actual demonstration as possible in specific skills areas. Activities must be carried-out in naturally occurring sequences and timeframe. Use of multi-sensory approach, reinforcement and great deal of patience would be required to teach a simple task so do not humiliate a child under any circumstances, he will not learn if he is frightened.
- 12) **Use Proper Language and Communication:** A language understood and accessible to each and every child should be used in a manner no one remains offended and afraid. Language should not remain a barrier between teachers and students, between the teaching-learning processes. Overcoming this barrier of language or communication becomes necessary in the inclusive system of education.

1.11. TRANSITION FROM SEGREGATION TO INCLUSION

The historical perspective on education of children with special needs presents both an optimistic and a pessimistic picture. The optimistic picture indicates that the practices and policies in education of children with special needs have improved over time that the attitude of the society towards the special needs children has changed over the centuries slowly but effectively. The pessimistic picture indicates how some groups of influential people, though small in number, conspired to subvert any progress towards more liberal practices, how the interest of these children were damaged by those who claimed to serve and how the conservative forces worked to maintain their status.

Thus, it is pertinent to how changes have taken place from superstitions to segregation, and latter to integration and what are the changes taking place at present:

- 1) **Superstition:** In the ancient time, different nations, especially in Egypt, Greek and Rome, disabled children were killed because they were considered imperfect child. There was prevalent some myths like "**nothing imperfect should be brought up**". But, after some time, during middle period, due to prevalence of religious convictions all over the world some humanitarian care

for the disabled children were given. The prevalent condition of that weather these children were the result of anger of God, or some mentally ill were possessed by evil spirits. After some time people viewed mental illness as a disease not the result of possession by evil spirits or curse of God. In ancient India the persons with disabilities were given education in the communities in which they lived. Education was given in the mainstream schools alongside the non-handicapped peers in a **Gurukul**. Individualised instructions were given based on the individual child's needs and age.

- 2) **Segregation:** In the late 1900s, an American physician, **Benjamin Rush**, was one of the first introducer of the idea to educate the children with disabilities. One another person, **J.M.S Itard**, a French physician was the originator of instructional devices, the inventor of behaviourly modification techniques, the first speech therapist, and creator of oral education for the deaf, called the **father of special education for the mentally retarded and the physically handicapped**. His work with Victor, a wild boy of 11 or 12, established the idea that the retarded could learn and improve. In 1817, the first special school was established by **Thomas Gallaudet at the Hartford**, for the education of the deaf. In 1829, the New England Asylum for the education of the blind was founded in Watertown, Massachusetts. **E. Seguin** established the first special school for the feeble minded in Paris. In 1846, he published his classic textbook, '**Idiocy and Its treatment by the physiological method**'.

The first experimental school for teaching and training idiotic children was founded in 1846 in Barre, Massachusetts. The first college for the deaf was started in 1875 in Columbia. In 1896, Rhode Island began education classes for individuals with mental retardation. The first remedial centre was set-up in England in the late 1940s.

- 3) **The Movement towards Integrated Education:** In the early part of 1970s, various court decisions in USA established the right of all children labelled as mentally retarded to free and appropriate education. Pressure made by parents, courts and legislators resulted in **Education for All Handicapped Children Act of 1975**, which was enacted in 1978.

In the 1970s, the government launched the Centrally Sponsored Scheme of Integrated Education for Disabled Children (IEDC). The scheme aimed at providing educational opportunities to learners with disabilities in regular schools, and to facilitate their achievement and retention. Integrated education for disabled children was the favoured practice in all countries upto 1994, World Conference on Special Education Needs at Salamanca, Spain. At the second European conference of ministers responsible for integration policies for people with disabilities in Malaga, Spain in May 2003, the ministers deliberated the common principles that should permeate future disability policy development and public service delivery. The ministers considered that "education is a basic instrument of social integration and efforts should be made to give the opportunity to children with disabilities to attend a mainstream school if it is in the interest of the child, to facilitate the transition from school or higher education to employment, and to develop the concept of life-long learning."

Under the heading "Education", Article 24 of the International Convention on the Rights of Persons with Disabilities places a strong obligation on governments to provide inclusive education for all learners. It is stated in Article 24 that with a view of realising the right of persons with disabilities to education without discrimination and on the basis of equal opportunity, States shall ensure an inclusive education system at all levels and life-long learning. In realising this, states shall ensure that:-

- i) Persons with disabilities are not excluded from the general education system on the basis of disability, and that children with disabilities are not excluded from free and compulsory primary education, or from secondary education on the basis of disability;
- ii) Persons with disabilities can access an inclusive, quality, free primary education and secondary education on an equal basis with others in the communities in which they live;
- iii) Reasonable accommodation of the individual's requirements is provided;
- iv) Persons with disabilities receive the support required, within the general education system, to facilitate their effective education; and
- v) Effective individualised support measures are provided in environments that maximise academic and social development, consistent with the goal of full inclusion.

4) **Inclusion:** In this approach, students with special needs spend all, or most of the school day with students who do not have special needs. Because inclusion can require substantial modification of the general curriculum, most schools use it only for selected students with mild to moderate special needs, which is accepted as a best practice. Specialised services may be provided inside or outside the regular classroom, depending on the type of service. Students may occasionally leave the regular classroom to attend smaller, more intensive instructional sessions in a resource room, or to receive other related services that might require specialised equipment or might be disruptive to the rest of the class, such as speech and language therapy, occupational therapy, physical therapy, rehabilitation counselling. They might also leave the regular classroom for services that require privacy, such as counselling sessions with a social worker.

1.12. PRINCIPLES OF INCLUSIVE EDUCATION

The well-researched and accessible pedagogy, 'Seven Principles for Inclusive Education', is the underpinning for all of Tanenbaum's curricula and teacher training programmes (training in the Seven Principles is a core piece of all our teacher training programmes). The Seven Principles can be applied to any classroom or lesson plan to increase equity and decrease exclusion:

- 1) **Teaching All Students:** Educators should take several different approaches to teach the same material so that information becomes more interesting and tangible to a greater number of students.

- 2) **Exploring Multiple Identities:** Students who are proud of themselves and excited by the world around them will be more compassionate and understanding people; the same is true for educators.
- 3) **Preventing Prejudice:** Educators should take a proactive approach to debunking preconceived stereotypes and preventing them from escalating into prejudices and negative biases.
- 4) **Promoting Social Justice:** Students are good judges of what is fair, especially when they are affirmatively challenged to consider issues of social justice. Educators should talk to them about issues of social justice and injustice in terms of fair versus unfair, respectful versus disrespectful.
- 5) **Choosing Appropriate Materials:** Inclusive classrooms use books and materials that reflect accurate images of diverse peoples and challenge stereotypes.
- 6) **Teaching and Learning about Cultures and Religions:** Educators should create curiosity and expand students' horizons by teaching about others in a positive manner. Students should have the opportunity to learn from their peers as well as other cultures.
- 7) **Adapting and Integrating Lessons Appropriately:** Educators should be flexible when using and adapting lessons in our curricula, as well as in prescribed curricula in general. Many of the most teachable moments are unplanned and unscripted.

1.13. MODELS OF INCLUSION

Inclusion is an educational practice in which children with disabilities are educated in classrooms with children without disabilities. The purpose of inclusion is to make sure that students with special needs are integrated in the general education setting for as much of the day as possible, with the supports they need to be successful.

Under the inclusion model, students with special needs spend most or all of their time with non-special needs students. Inclusion rejects the use of special schools or classrooms to separate students with disabilities from students without disabilities.

There are various models of inclusion. There are generally two models for inclusion, i.e., push in or full inclusion.

- 1) **Partial Inclusion Model/Push in Model:** Practically, full inclusion is neither feasible nor proves more productive. Therefore, attempts are made to seek such integration that may work well in prevailing situations and fulfil the needs of disabled/non-disabled children. Partial inclusion model varies in styles and functioning as below:
 - i) **Disabled students attend the regular classes along with their normal peers. They get required support from the push in teacher, special education expert and itinerant teacher within classroom set-up without**

causing disturbance to attend and avail the services of the resource room or special classes for some periods of the school time-table besides attending the regular classes on all the working day along with their non-disabled peers.

- ii) Disabled students receive education in special classes meant for their special education, but, however, participate in all the programmes and activities including sports, literature or co-curricular activities for personality development.
- iii) Disabled students attend special schools meant for their specific special education but gets opportunities for the academic, social and societal interaction with the non-disabled in normal school set-up.
- iv) In a reverse model of inclusion/integration, a large number of normal children are occasionally placed with the disabled children to seek academic and non-academic interaction among them for helping each other to understand and adjust to each other's specific needs of life.

'Push In' has the special education teacher enter in the classroom to provide instruction and support to children. The push-in teacher will bring materials into the classroom. The teacher may work with the child on math during the math period, or perhaps reading during the literacy block. The push-in teacher also often provides instructional support to the general education teacher, perhaps helping with differentiation of instruction.

2) **Full Inclusion Model:** Full Inclusion Students with moderate to severe disabilities are included in the regular education classroom and supports and aids are given to the regular education teacher to assist the special education student in the classroom. The full inclusion model of instruction rejects the use of special schools or separate classrooms for the teaching of students with special needs. Instead of special education personnel working to consider each student's "Least-restrictive environment," a full inclusion model advances the idea of having all students, regardless of learning disabilities, as part of the general education classroom. Other forms of inclusion are less extreme, but provide opportunities for students with special education needs to learn within mainstream settings when appropriate.

3) **Wang's Adaptive Learning Environment Model-WALEM:** The Adaptive Learning Environments Model (ALEM) is an innovative educational program designed to meet the diverse social and academic needs of students in regular classes. A product of over 2 decades of research, development and school-based implementation in a variety of communities, the model serves as an alternative approach to educational reform for schools striving to be responsive to the learning needs of individual students with varying abilities, experiences, and socioeconomic backgrounds.

Underlying the model's design is the premise that students learn in different ways and at varying rates and require different amounts of instructional support. The Adaptive Learning Environments Model accommodates and builds upon these differences through adaptive instruction, in which a variety

of instructional methods are adopted and tailored to the needs and the learning characteristics of individual students and specific interventions are used to increase each student's ability to benefit from the learning environment.

Working of the Model

Following are the working of model:

- i) The Adaptive Learning Environments Model's goal is to ensure achievement of basic academic skills and other valued educational outcomes, including students' positive self-perceptions of academic and social competence, sense of responsibility for their own education and the broader community and competencies for coping with the social and academic demands of schooling. In order to accomplish this, the model focuses on systematically integrating features that theory, research, and practice have shown to be instructionally effective and pedagogically meaningful.
- ii) Accordingly, implementation of the Adaptive Learning Environments Model is supported by three categories of program design dimensions - delivery of adaptive instruction in regular classroom settings; classroom management and program implementation; and school- and district-level interventions.
- iii) Effective implementation of the model requires teachers to use all forms of knowledge in implementing demonstrably effective classroom practices to accommodate students' diverse learning needs. Although adaptive instruction calls for individualized planning, teachers do not work with students on a one-on-one basis. Whole-class and small-group instruction and peer-based cooperative learning are incorporated when deemed particularly suited for achieving certain intended student outcomes or ways to improve instructional efficiency.
- iv) In the Adaptive Learning Environments classroom, individual differences are viewed as the norm rather than the exception. While differences in rates of progress are recognized by teachers, parents, and the students themselves, the acquisition of basic academic skills and the development of social competence and self-esteem are expected of each student. Under the Adaptive Learning Environments Model program, specialist teachers and other related services professionals (e.g., speech pathologists or school psychologists) work with regular classroom teachers in a coordinated system of instructional and related service delivery.

Beside these models some other models are team teaching model, strategies intervention model, and circle of inclusion model. Thus the help of various models of inclusive education are taken for the education of the exceptional/disabled children keeping in view of the severity of their impairments. They are provided free or restrictive environment for their learning and the situation or circumstances available for inclusive education.

1.14. EXERCISE

1.14.1. Very Short Answer Type Questions

- 1) What do you mean by disability?
- 2) Define exceptional children.
- 3) Define inclusive education.
- 4) What is visual impairment?
- 5) What is integrated education?

1.14.2. Short Answer Type Questions

- 1) What is need and importance of inclusive education in present era?
- 2) Differentiate between inclusive education, integrated education and inclusive education.
- 3) Write a short note on visual impairment.
- 4) Briefly discuss multiple disabilities.
- 5) What is mental retardation?

1.14.3. Long Answer Type Questions

- 1) What do you mean by inclusive education? What are the problems of inclusive education in India? How these problems can be solved.
- 2) Describe the principles and models of inclusive education.
- 3) Write principles and process of inclusive education.
- 4) Discuss and describe children with special needs in detail. What are the various types of special need children?
- 5) Focus on neurological disorders and learning disability in detail.

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UNIT 2**Legal and Policy Perspectives****2.1. INTERNATIONAL DECLARATIONS AND CONVENTIONS****2.1.1. Introduction**

Inclusive education is one of the most important welfare programmes for providing education to all under one roof. In this direction not only the Government of India but all other nations' governments are engaged to enhance the level of education and fulfil the aim of providing education to person with and without disabilities. For this they are implementing and executing various policies and legislations.

The Convention on the Rights of Persons with Disabilities is an international human rights treaty of the United Nations intended to protect the rights and dignity of persons with disabilities. Parties to the Convention are required to promote, protect, and ensure the full enjoyment of human rights by persons with disabilities and ensure that they enjoy full equality under the law. The Convention has served as the major catalyst in the global movement from viewing persons with disabilities as objects of charity, medical treatment and social protection towards viewing them as full and equal members of society, with human rights.

The Convention clarifies and qualifies how all categories of rights apply to persons with disabilities and identifies areas where adaptations have to be made for persons with disabilities to effectively exercise their rights and areas where their rights have been violated, and where protection of rights must be reinforced.

The two main bodies which are directed towards person with disabilities are:

- 1) Salamanca Statement and Framework of Action, 1994.
- 2) Educational Provisions in the UN Convention on the Rights of Person with Disabilities (UNCRPD), 2006.

2.1.2. Salamanca Statement and Framework of Action, 1994

The Salamanca Statement and Framework of Action on Disability Education (1994) emerged as a result of deliberations held by more than 300 participants representing 92 governments including India and 25 international organisations in June 1994. For furthering the objectives of education for all, it considered the fundamental policy shifts required to promote inclusive education. It emphasises

that schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. The term 'Special Educational Needs' refers to all those children and youth whose needs arise from disability or learning difficulties. The statement affirms, "Those with special educational needs must have access to regular schools which should accommodate them within a child-centred pedagogy capable of meeting these needs".

2.1.2.1. Main Provisions Relating to Right to Education

Reaffirming the right to education of every individual, as enshrined in the 1948 Universal Declaration of Human Rights, and renewing the pledge made by the world community at the 1990 World Conference on Education for All to ensure that right for all regardless of individual differences.

Recalling the several United Nations declarations culminating in the 1993 United Nations Standard Rules on the Equalisation of Opportunities for Persons with Disabilities, which urges States to ensure that the education of persons with disabilities is an integral part of the education system.

Noting with satisfaction the increased involvement of governments, advocacy groups, community and parent groups, and in particular organisations of persons with disabilities, in seeking to improve access to education for the majority of those with special needs still unreached; and recognising as evidence of this involvement the active participation of high level representatives of numerous governments, specialised agencies and intergovernmental organisations in this World Conference,

"We, the delegates of the World Conference on Special Needs Education representing 92 governments and 25 international organisations, assembled here in Salamanca, Spain, from 7-10 June 1994, hereby reaffirm our commitment to Education for All, recognising the necessity and urgency of providing education for children, youth and adults with special educational needs within the regular education system, and further hereby endorse the Framework for Action on Special Needs Education, that governments and organisations may be guided by the spirit of its provisions and recommendations."

- 1) We believe and proclaim that:
 - i) Every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning,
 - ii) Every child has unique characteristics, interests, abilities and learning needs,
 - iii) Education systems should be designed and educational programmes should be implemented to take into account the wide diversity of these characteristics and needs,
 - iv) Those with special educational needs must have access to regular schools which should accommodate them within a child-centred pedagogy capable of meeting these needs.
 - v) 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 education system.

- 2) We call upon all governments and urge them to:
 - i) Give the highest policy and budgetary priority to improve their education systems to enable them to include all children regardless of individual differences or difficulties;
 - ii) 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;
 - iii) Develop demonstration projects and encourage exchanges with countries having experience with inclusive schools;
 - iv) Establish decentralised and participatory mechanisms for planning, monitoring and evaluating educational provision for children and adults with special education needs;
 - v) Encourage and facilitate the participation of parents, communities and organisation of persons with disabilities in the planning and decision-making processes concerning provision for special educational needs;
 - vi) Invest greater effort in early identification and intervention strategies, as well as in vocational aspects of inclusive education; and
 - vii) Ensure that, in the context of a systemic change, teacher education programmes, both pre-service and in-service, address the provision of special needs education in inclusive schools.
- 3) We also call upon the international community; in particular we call upon:
 - i) Governments with international cooperation programmes and international funding agencies, especially the sponsors of the World Conference on Education for All, the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the United Nations Children's Fund (UNICEF), United Nations Development Programme (UNDP), and the World Bank:
 - a) To endorse the approach of inclusive schooling and to support the development of special needs education as an integral part of all education programmes.
 - b) The United Nations and its specialised agencies, in particular the International Labour Office (ILO), the World Health Organisation (WHO), UNESCO and UNICEF.
 - c) To strengthen their inputs for technical cooperation, as well as to reinforce their cooperation and networking for more efficient support to the expanded and integrated provision of special needs education.
 - ii) Non-governmental organisations involved in country programming and service delivery: to strengthen their collaboration with the official national bodies and to intensify their growing involvement in planning, implementation and evaluation of inclusive provision for special educational needs.

- 4) UNESCO, as the United Nations agency for education:
 - i) To ensure that special needs education forms part of every discussion dealing with education for all in various forums;
 - ii) To mobilise the support of organisations of the teaching profession in matters related to enhancing teacher education as regards provision for special educational needs;
 - iii) To stimulate the academic community to strengthen research and networking and to establish regional centres of information and documentation; also, to serve as a clearinghouse for such activities and for disseminating the specific results and progress achieved at country level in pursuance of this Statement; and
 - iv) To mobilise funds through the creation within its next Medium-Term Plan (1996-2002) of an expanded programme for inclusive schools and community support programmes, which would enable the launching of pilot projects that showcase new approaches for dissemination, and to develop indicators concerning the need for and provision of special needs education.
- 5) Finally, we express our warm appreciation to the Government of Spain and to UNESCO for the organisation of the Conference, and we urge them to make every effort to bring this statement and the accompanying framework for action to the attention of the world community, especially at such important forums as the World Summit for Social Development (Copenhagen, 1995) and the World Conference on Women (Beijing, 1995).

2.1.3. Framework of Action

- 1) This Framework of Action on Special Needs Education was adopted by the World Conference on Special Needs Education organised by the Government of Spain in cooperation with UNESCO and held in Salamanca from 7 to 10 June 1994. Its purpose is to inform policy and guide action by governments, international organisations, national aid agencies, non-governmental organisations and other bodies in implementing the Salamanca Statement on Principles, Policy and Practice in Special Needs Education. The Framework draws extensively upon the national experience of the participating countries as well as upon resolutions, recommendations and publications of the United Nations system and other intergovernmental organisations, especially the Standard Rules on the Equalisation of Opportunities for Persons with Disabilities. It also takes account of the proposals, guidelines and recommendations arising from the five regional seminars held to prepare the World Conference.
- 2) The right of every child to an education is proclaimed in the Universal Declaration of Human Rights and was forcefully reaffirmed by the World Declaration on Education for All. Every person with a disability has a right to express their wishes with regard to their education, as far as this can be ascertained. Parents have an inherent right to be consulted on the form of education best suited to the needs, circumstances and aspirations of their children.
- 3) The guiding principle that informs this Framework is that schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions.

New Thinking in Special Needs Education

- 1) The trend in social policy during the past two decades has been to promote integration and participation and to combat exclusion. Inclusion and participation are essential to human dignity and to the enjoyment and exercise of human rights. Within the field of education, this is reflected in the development of strategies that seek to bring about a genuine equalisation of opportunity.
- 2) Educational planning by governments should concentrate on education for all persons, in all regions of a country and in all economic conditions, through both public and private schools.
- 3) Because in the past relatively few children with disabilities have had access to education, especially in the developing regions of the world, there are millions of adults with disabilities who lack even the rudiments of a basic education. A concerted effort is thus required to teach literacy, numeracy and basic skills to persons with disabilities through adult education programmes.
- 4) It is particularly important to recognise that women have often been doubly disadvantaged, bias based on gender compounding the difficulties caused by their disabilities. Women and men should have equal influence on the design of educational programmes and the same opportunities to benefit from them. Special efforts should be made to encourage the participation of girls and women with disabilities in educational programmes.

Guidelines for Action at the National Level

Policy and Organisation

- 1) Integrated education and community-based rehabilitation represent complementary and mutually supportive approaches to serving those with special needs. Both are based upon the principles of inclusion, integration and participation, and represent well-tested and cost-effective approaches to promoting equality of access for those with special educational needs as part of a nationwide strategy aimed at achieving education for all. Countries are invited to consider the following actions concerning the policy and organisation of their education systems.
- 2) Legislation should recognise the principle of equality of opportunity for children, youth and adults with disabilities in primary, secondary and tertiary education carried out, in so far as possible, in integrated settings.
- 3) Special attention should be paid to the needs of children and youth with severe or multiple disabilities. They have the same rights as others in the community to the achievement of maximum independence as adults and should be educated to the best of their potential towards that end.

Priority Areas: Girls' Education

- 1) **Girls with Disabilities are Doubly Disadvantaged:** A special effort is required to provide training and education for girls with special educational needs. In addition to gaining access to school, girls with disabilities should have access to information and guidance as well as to models which could help them to make realistic choices and preparation for their future role as adult women.

- 2) **Adult and Continuing Education:** Persons with disabilities should be given special attention in the design and implementation of adult and continuing education programmes. Persons with disabilities should be given priority access to such programmes. Special courses should also be designed to suit the needs and conditions of different groups of adults with disabilities.
- 3) **Community Perspectives:** Realising the goal of successful education of children with special educational needs is not the task of the Ministries of Education and schools alone. It requires the cooperation of families, and the mobilisation of the community and voluntary organisations as well as the support of the public at large. Experience from countries or areas that have witnessed progress in equalising educational opportunities for children and youth with special educational needs suggests several useful lessons.

Guidelines for Action at the Regional and International Level

International coordination should exist to support universal accessibility specifications in communication technology underpinning the emerging information infrastructure.

2.1.4. Educational Provisions in the UN Convention on the Rights of Person with Disabilities (UNCRPD), 2006

The CRPD entered into force in 2008 and has been ratified by 125 countries (October 2012). The convention fosters a new understanding of disability: "Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others" (Art. 1). Whereas in the past, the focus was on the impairments of persons (medical model of disability), the understanding is now widened and comprises the barriers persons with disabilities encounter (social model of disability). The CRPD expands the scope of the existing human rights system: first the concept of accessibility is further developed as a wide variety of impairments and societal barriers which are taken into account. In addition, the principle of "Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity" (Art. 3) marks a generally positive approach towards persons with disabilities.

The CRPD itself is divided into three parts:

- 1) The first part consists of the transversal provisions (Articles 1–9). This part includes the general principles of the Convention (Article 3), the general obligations of the States Parties (Article 4), the right to equality and non-discrimination (Article 5) as well as standalone provisions for women with disabilities (Article 6) and children with disabilities (Article 7) in addition to awareness-raising (Article 8) and accessibility (Article 9). Worth stressing here is that States Parties have to 'adopt all appropriate legislative, administrative and other measures for the implementation of the rights recognised in the present Convention' according to Article 4(1) and that 'in the development and implementation of legislation and policies' they have to

'closely consult with and actively involve persons with disabilities' according to Article 4 (3). Article 5(3) also provides that they must 'take all appropriate steps to ensure that reasonable accommodation is provided'. As far as economic, social and cultural rights are concerned, it should also be noted that, like Article 2 (1) of the ICESCR, Article 4 (2) of the CRPD provides that 'with regard to economic, social and cultural rights, each State Party undertakes to take measures to the maximum of its available resources with a view to achieving progressively the full realisation of these rights'. The principles that were previously outlined regarding economic, social and cultural rights apply therefore likewise to the CRPD.

- 2) **The second part** sets out an exhaustive catalogue of civil, political, economic, social and cultural rights, taking account of the special needs of persons with disabilities (Article 10–30). This part includes the right to life (Article 10), legal capacity and equal recognition before the law (Article 12), the right to access to justice (Article 13), the right to liberty and security of the person (Article 14), freedom from torture or cruel, inhuman or degrading treatment or punishment (Article 15), freedom from exploitation, violence and abuse (Article 16), the right to living independently and being included in the community (Article 19), freedom of expression and opinion and access to information (Article 21), the right to privacy (Article 22), respect for home and the family (Article 23), the right to education (Article 24), the right to health (Article 25), the right to habilitation and rehabilitation (Article 26), the right to work (Article 27), the right to social protection (Article 28) and participation in cultural life, recreation, leisure and sport (Article 30). Although all of these are equally important for persons with disabilities, one of the essential rights for the enjoyment of all rights enshrined in the Convention is the right protected by Article 12 (2), which recognises that 'persons with disabilities enjoy legal capacity on an equal basis with others in all aspects of life'. Without autonomy, these persons cannot make choices for their life, which applies to the right to education as well. This relationship does not mean that other provisions are not interrelated. On the contrary, the rights of persons with disabilities cannot be isolated from each other and should be read together, as is the case with the right to education and the right to independent living as well as participation in cultural life, recreation, leisure and sport.
- 3) **The third part** deals with implementation and monitoring (Article 31–40). After data collection (Article 31) and international cooperation (Article 32), this part provides for the creation of national mechanisms for implementation and monitoring (Article 33), the establishment of the Committee on the Rights of Persons with Disabilities (Article 34), State reporting (Article 35) and report consideration (Article 36) as well as meetings of the Conference of States Parties (Article 40). It is particularly interesting that the CRPD provides for monitoring mechanisms not only at the international but also at the national level. Article 33 (2) stipulates that States Parties should designate or establish 'a framework, including one or more independent mechanisms, as appropriate, to promote, protect and monitor implementation of the present

Convention' taking into account the Paris Principles (which regulate NHRIs). While there were some innovative proposals, such as the Conference of States Parties, during the negotiations, the international mechanisms are to a large extent copied from other international human rights treaties.

Rights Enshrined in the CRPD

1) Civil and Political Rights

- i) Equality and Non-discrimination (Art. 5)
- ii) Right to Life (Art. 10)
- iii) Equal Recognition before the Law and Legal Capacity (Art. 12)
- iv) Equal Access to Justice (Art. 13)
- v) Liberty and Security of the Person (Art. 14)
- vi) Freedom from Torture or Cruelty, Inhuman or Degrading Treatment or Punishment (Art. 15)
- vii) Freedom from Exploitation, Violence and Abuse (Art. 16)
- viii) Right to Respect for Physical and Mental Integrity (Art. 17)
- ix) Right to Liberty of Movement and Nationality (Art. 18)
- x) Right to Freedom of Expression and Opinion and Access to Information (Art. 21)
- xi) Respect for Privacy (art. 22)
- xii) Respect for Home and the Family (Art. 23)
- xiii) Right to Participation in Political and Public Life (Art. 29)

2) Economic, Social, and Cultural Rights

- i) Right to Education (Art. 24)
- ii) Right to Health (Art. 25)
- iii) Right to Rehabilitation (Art.26)
- iv) Right to Work and Employment (Art. 27)
- v) Right to an Adequate Standard of Living and Social Protection (Art. 28)
- vi) Right to Participation in Cultural Life, Recreation, Leisure and Sports (Art. 29)

3) Cross-Cutting Rights, Rights of Specific Groups, Rights of Persons with Disabilities in Specific Situations

- i) Equality and Non-discrimination (Art. 5)
- ii) Right to Access (Art. 9)
- iii) Right to Live Independently and to be Included in the Community (Art. 19)
- iv) Rights of Women with Disabilities (Art. 6)
- v) Rights of Children with Disabilities (Art. 7)
- vi) Protection of Persons with Disabilities in Situations of Risk, Armed Conflicts and
- vii) Humanitarian Emergencies (Art. 11)
- viii) International Cooperation (Art. 32)

Human Rights Principles and General Principles of the CRPD

Following are the principles of CRPD:

1) Human Rights Principles

- i) Non-discrimination,
- ii) Equality of opportunity,
- iii) Participation,
- iv) Empowerment,
- v) Accountability, and
- vi) Transparency.

2) General Principles of the CRPD

- i) Non-discrimination,
- ii) Equality of opportunity,
- iii) Gender equality,
- iv) Respect for children with disabilities,
- v) Participation,
- vi) Inclusion,
- vii) Accessibility,
- viii) Human diversity,
- ix) Individual autonomy, and
- x) Independence of persons.

2.1.4.1. UN Convention on the Rights of Persons with Disabilities

The right to education is one of the most important rights for persons with disabilities. It enhances their autonomy and facilitates their participation in society. It has an impact on the enjoyment of all the other rights protected by the CRPD. To maximise the chances of children with disabilities to enjoy equal treatment, Article 24 of the CRPD proclaims the right to inclusive education.

States which agree to be bound by the Convention recognise “the importance of accessibility to the physical, social, economic and cultural environment, to health and education and to information and communication, in enabling persons with disabilities to fully enjoy all human rights and fundamental freedoms” (Preamble, Para. v).

The Rights to Inclusive Education is enshrined in Article 24, are as follows:

- 1) States Parties recognise the Right of Persons with Disabilities to education. With a view to realising this right without discrimination and on the basis of equal opportunity, States Parties shall ensure an inclusive education system at all levels and lifelong learning directed to:
 - i) The full development of human potential and sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity;
 - ii) The development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential;
 - iii) Enabling persons with disabilities to participate effectively in a free society.

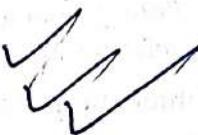
- 2) In realising this right, States Parties shall ensure that:
 - i) Persons with disabilities are not excluded from the general education system on the basis of disability, and that children with disabilities are not excluded from free and compulsory primary education, or from secondary education, on the basis of disability;
 - ii) Persons with disabilities can access an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live;
 - iii) Reasonable accommodation of the individual's requirements is provided;
 - iv) Persons with disabilities receive the support required, within the general education system, to facilitate their effective education; and
 - v) Effective individualised support measures are provided in environments that maximise academic and social development, consistent with the goal of full inclusion.
- 3) States Parties shall enable persons with disabilities to learn life and social development skills to facilitate their full and equal participation in education and as members of the community. To this end, States Parties shall take appropriate measures, including:
 - i) Facilitating the learning of Braille, alternative script, augmentative and alternative modes, means and formats of communication and orientation and mobility skills, and facilitating peer support and mentoring;
 - ii) Facilitating the learning of sign language and the promotion of the linguistic identity of the deaf community; and
 - iii) Ensuring that the education of persons, and in particular children, who are blind, deaf or deaf blind, is delivered in the most appropriate languages and modes and means of communication for the individual, and in environments which maximise academic and social development.
- 4) In order to help ensure the realisation of this right, States Parties shall take appropriate measures to employ teachers, including teachers with disabilities, who are qualified in sign language and/or Braille, and to train professionals and staff who work at all levels of education. Such training shall incorporate disability awareness and the use of appropriate augmentative and alternative modes, means and formats of communication, educational techniques and materials to support persons with disabilities.
- 5) States Parties shall ensure that persons with disabilities are able to access general tertiary education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others. To this end, States Parties shall ensure that reasonable accommodation is provided to persons with disabilities.'

2.1.4.2. Human Rights-Based Approach to Disability given by the UN

Persons with disabilities have long been seen as passive recipients of aid, often reduced to their impairment-related health needs. A human rights-based approach to disability implies that all people are active subjects with legal claims and that persons with disabilities need to participate in all spheres of society on an equal

basis with their non-disabled peers. According to the human rights-based approach to development as defined by the UN, development cooperation contributes to capacity development of "duty bearers", i.e., States and their institutions acting with delegated authority, to meet their obligations, and on the other hand of "rights-holders", e.g., persons with disabilities, to claim their rights. Throughout this process, the following core human rights principles should be applied:

- 1) Equality and non-discrimination,
- 2) Participation and empowerment, and
- 3) Transparency and accountability.



Development cooperation needs to address the multiple barriers to the inclusion of persons with disabilities – physical, attitudinal and communication barriers. As these barriers can be found in all sectors and at all levels, a human rights-based approach to disability is relevant for programmes in a variety of sectors, including infrastructure, water and sanitation, health, education, social protection, employment, economic development or governance.

- 1) **Enhancing Respect for Persons with Disabilities:** The CRPD refers to respect in two different ways, i.e., respect for the inherent dignity of every human being and everyone's individual autonomy, and respect for difference and acceptance of persons with disabilities as part of human diversity. This implies that every individual, however different he or she may be, has to be valued as a full member of society, and that persons with disabilities are considered as autonomous persons with the freedom to make their own choices. Many development programmes use various awareness-raising, communication, information and capacity development instruments. Promoting respect for persons with disabilities could be included as part of these activities.
- 2) **Ensuring Accessibility:** The CRPD defines accessibility as a general principle and a standalone right and mentions it in many other rights. It thus recognises that removing the multiple barriers to access in society is a key requirement for the inclusion of persons with disabilities. There are four dimensions of accessibility – physical accessibility, information and communication accessibility, institutional accessibility, and economic accessibility. Many development interventions aim at improving the access of the poor to services and information. In this context, they can include activities to enhance accessibility for persons with disabilities as part of the target group. Physical accessibility is a key dimension for all development programmes that include an infrastructure component. Communication accessibility can be improved by providing information material in accessible formats or by using alternative communication, e.g., sign language.
- 3) **Addressing Non-Discrimination, Equality of Opportunity and Gender Equality:** Non-discrimination is a core human rights principle that is enshrined in different human rights treaties. The CRPD embraces both a legal perspective of non-discrimination (equality before and under the law) and a social vision (equality of opportunities in society). The CRPD recognises that

women with disabilities are often subject to multiple discrimination on the grounds of gender and disability, and thus have fewer opportunities to enjoy their rights. It emphasises the need to incorporate a gender perspective in all efforts to promote the rights of persons with disabilities.

Development programmes, projects or organisations promoting a review of laws, policies or social standards can include activities to encourage equal opportunities for all persons with disabilities. Programmes aimed at the private sector may promote the development of employment standards or workplace policies that guarantee opportunities for men and women with disabilities. Development agencies and NGOs should also overcome their own barriers and provide equal employment opportunities.

4) **Promoting and Ensuring the Rights of Children with Disabilities:** In many countries, the capabilities of children and youth with disabilities are not recognised and their views are not taken into account. They are often denied access to education or vocational training and are more vulnerable to violence and abuse than their non-disabled peers.

The CRPD puts a three-fold focus on the need to respect the identity and evolving capacities of children with disabilities, to protect them and to include them fully in society. Development organisations should make sure that the voices of children and youth with disabilities are heard. Programmes working specifically on children and youth, in areas such as legal protection, child health, primary and secondary education or community development should make sure that young people with disabilities are included in the activities.

5) **Promoting and Ensuring Participation and Empowerment of Persons with Disabilities:** Participation is both a means (participatory approach) and an aim (the right to participate). It entails empowering rights-holders such as persons with disabilities to articulate their expectations towards the State and other duty bearers, and to claim their rights.

6) **Strengthening Accountability:** Accountability can be defined as the process which requires duty-bearers to show, explain and justify how they have discharged their obligations. There are several types of accountability mechanisms, ranging from judicial mechanisms, e.g., obliging the government to review discriminatory laws, and administrative mechanisms, e.g., complaint mechanisms enabling persons with disabilities to file grievances to social mechanisms, e.g., involvement of civil society in budget monitoring. Accountability can be fostered both by enhancing the capacity of persons with disabilities to hold their governments accountable, and by strengthening or establishing disability-inclusive accountability mechanisms.

2.2. EDUCATION OF STUDENTS WITH DISABILITIES IN VARIOUS POLICIES

2.2.1. Constitutional Provisions

Various policies and legislations executed by the government are as follows:

The Constitution of India (26 November, 1949) clearly states in the Preamble that "everyone has the right to equality of status and opportunity".

Article 14, 15, 19 and 21 respectively of the Constitution ensures for all its citizens equality before the law, non-discrimination and the right to life and liberty. These Articles do not specifically refer to persons with disabilities but are general in nature.

Article 41 of the Directive Principles of the Indian Constitution supports the right to work, to education and to public assistance in certain cases, including disablement.

Article 45 commits to the provision of free and compulsory education for all children upto the age of 14 years. Based on this, the Constitution (86th Amendment) Act 2002, has been enacted by the Parliament making education a fundamental right of all children in the age group of 6-14 years.

Some policies and legislations executed by the government for inclusive education are as follows:

- 1) National Policy on Education (NPE) 1968, and 1986,
- 2) Plan of Action (POA) 1992,
- 3) National Policy for Persons with Disabilities, 2006, and
- 4) RTE Act, 2009.

2.2.2. National Policy on Education (NPE), 1968

The National Policy on Education (NPE) is a policy formulated by the Government of India to promote education amongst India's citizen. The policy covers elementary education to colleges in both rural and urban India. The first NPE was promulgated in 1968 by the government of Prime Minister Indira Gandhi, and the second by Prime Minister Rajiv Gandhi in 1986. The NPE brought the fundamental issue of equality on the centre stage. In 1968, The National Education Policy followed the Commission's recommendations and suggested the expansion of education facilities for physically and mentally handicapped children and the development of 'Integrated Programme' enabling handicapped children to study in regular schools.

Regarding the education for disabled children this policy tried to lay down the following main provision:

1) Educational facilities for the physically and mentally handicapped children should be expanded and attempts should be made to develop integrated

programmes enabling the handicapped children to study in regular schools. In an attempt for implementation of the National Policy on Education, 1968, the Integrated Education for Disabled Children (IEDC) scheme was launched in December 1974 under the erstwhile department of social welfare for admitting children with disabilities in regular schools.

Based on the report and recommendations of the Education Commission (1966) the then prime minister of India Mrs. Indira Gandhi announced the first National Policy on Education in 1968 which called for a 'radical re-structuring' and equalise educational opportunities in order to achieve national integration and greater cultural and economic development according to this the government of India had formulated certain principles to promote the development of special education in the country: *(3 language)*

1) **Language Development:** The policy had also emphasised on the development of Indian as well as foreign languages in the country. The three language formula should be introduced in which a student at the secondary level should know Hindi, English and the regional language of his state. The language Sanskrit has been included as an optional subject in secondary level.

2) **Education Opportunity for All:** Under this policy every child of the country should get education irrespective of caste religion, region or whatever the case may be special emphasis should be given to backward classes, minority children and physically challenged children to avail the education facilities.

3) **Equalisation of Educational Opportunities**

- i) Good educational facilities to rural and backward areas,
- ii) All special schools like public schools should admit the student on the basis of merit, and
- iii) The education of girls should be on the grounds of social justice and social transformation.

4) **Education of Minorities:** Every effort should be made not only to protect the rights of minorities but to promote their educational interests as suggested in the statement issued by the Conference of Chief Ministers of States and Central Ministers held in August 1961.

2.2.3. National Policy on Education (NPE), 1986

The National Policy on Education is an extensive document that covers all aspects of education from elementary to university level and even adult education. The policy clearly focuses on the needs of the children with disabilities. It mainly focuses on to integrate the physically and mentally handicapped with the general community as equal partners, to prepare them for normal growth and to enable them to face life with courage and confidence. The following measures will be taken in this regard:

- 1) Wherever it is feasible, the education of children with motor handicaps and other mild handicaps will be common with that of others.
- 2) Special schools with hostels will be provided, as far as possible at district headquarters, for the severely handicapped children.

- 3) Adequate arrangements will be made to give vocational training to the disabled.
- 4) Teachers' training programmes will be reoriented, in particular for teachers of primary classes, to deal with the special difficulties of the handicapped children, and
- 5) Voluntary effort for the education of the disabled will be encouraged in every possible manner.

2.2.4. Programme of Action (POA), 1992

The 1986 National Policy on Education was modified in 1992 by the P.V. Narasimha Rao government. National Policy of Education (NPE), 1986 and Programme of Action, 1992 (POA), focuses its attention on education of handicapped children. The objective of this policy is to integrate the physically and mentally handicapped children with general community as equal partners, to prepare them for normal growth.

The POA suggested a pragmatic principle for children with special needs. It postulated that a child with disability who can be educated in a general school should be educated in a general school only and not in a special school. Even those children who are initially admitted to special schools for training in plus curriculum skills should be transferred to general schools once they acquire daily living skills, communication skills and basic academic skills.

Furthermore, the Standard Rules on the Equalisation of Opportunities for Persons with Disability (1993) was an important resolution for improving the educational conditions of persons with disability. This had major implications for the Indian situation in the form of three legislative Acts.

2.2.5. Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995

The most landmark legislation in the history of special education in India is the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995. This comprehensive Act covers seven disabilities namely blindness, low vision, hearing impaired, locomotor impaired, mental retardation, leprosy cured and mental illness. Chapter V (Section 26) of the Act, which deals with education, mentions that the appropriate Governments and the local authorities shall:

- 1) Ensure that every child with a disability has access to free education in an appropriate environment till he attains the age of eighteen years;
- 2) Endeavour to promote the integration of students with disabilities in the normal schools;
- 3) Promote setting up of special schools in governments and private sector for those in need of special education, in such manner that children with disabilities living in any part of the country have access to such schools;
- 4) Endeavour to equip the special schools for children with disabilities with vocational training facilities.

The Persons with Disabilities (Equal Opportunities, Protections of Right and Full Participation) Act, 1995 stresses the need to provide free of cost education to all children in an appropriate environment till they are 18 years old and further emphasise their right to measures like:

- 1) Transport facilities to students with disability or alternative financial incentives to the parents or guardians to enable their children with disability to attend schools;
- 2) Removal of architectural barriers from schools, colleges or other institutions imparting vocational and professional training;
- 3) Supply of books, uniforms and other materials to students with disability attending school;
- 4) Grant of scholarship to the students with disability;
- 5) Setting up of appropriate fora for the redressal of grievances of parents regarding the placement of their children with disability;
- 6) Suitable modification in the examination system to eliminate purely mathematical questions for the benefit of blind students and students with low vision;
- 7) Re-structuring of curriculum for the benefit of students with disability; and
- 8) Re-structuring the curriculum for the benefit of students with hearing impairment to facilitate them to take only one language as part of their curriculum.

2.2.6. National Policy on Disability, 2006

The Government of India formulated the National Policy for Persons with Disabilities in February 2006 which deals with physical, educational and economic rehabilitation of persons with disabilities. In addition the policy also focuses upon rehabilitation of women and children with disabilities, barrier-free environment, social security, research, etc. The National Policy recognises that persons with disabilities are valuable human resource for the country and seeks to create an environment that provides them equal opportunities, protection of their rights and full participation in society.

2.2.6.1. Focus of the Policy

The focus of the policy is on the following:

- 1) **Prevention of Disabilities:** It is clearly seen that disability in many cases is preventable. Thus, the policy lays emphasis on prevention of disabilities. It calls for programme for prevention of diseases, which result in disability and the creation of awareness regarding measures to be taken for prevention of disabilities during the period of pregnancy and thereafter to be intensified and their coverage expanded.
- 2) **Rehabilitation Measures:** These can be classified into three distinct groups:
 - i) Physical rehabilitation, which includes early detection and intervention, counselling, medical interventions and provision of aids and appliances. It will also include the development of rehabilitation of professionals.
 - ii) Educational rehabilitation including vocational education, and
 - iii) Economic rehabilitation for a dignified life in society.

3) **Protection to Women with Disabilities:** Women with disabilities require protection against exploitation and abuse. Special programmes will be developed for education, employment and providing of other rehabilitation services to women with disabilities keeping in view their special needs. Special educational and vocational training facilities will be set-up. Programmes will be undertaken to rehabilitate abandoned, disabled women/girls by encouraging their adoption in families, support to house them and impart them training for fruitful employment skills. The Government will encourage the projects where representation of women with disabilities is ensured atleast to the extent of twenty five per cent of total beneficiaries.

4) **More Focus on Children with Disabilities:** Children with disabilities are the most vulnerable group and need special attention. The Government would strive to:

- Ensure right to care, protection and security for children with disabilities;
- Ensure the right to development with dignity and equality creating an enabling environment where children can exercise their rights; enjoy equal opportunities and full participation in accordance with various statutes.
- Ensure inclusion and effective access to education, health, vocational training along with specialised rehabilitation services to children with disabilities.
- Ensure the right to development as well as recognition of special needs and of care, and protection of children with severe disabilities.

5) **Create Barrier-Free Environment:** Barrier-free environment enables people with disabilities to move about safely and freely and use the facilities within the built environment. The goal of barrier-free design is to provide an environment that supports the independent functioning of individuals so that they can participate without assistance, in everyday activities. Therefore, to the maximum extent possible, buildings/places/transportation systems for public use will be made barrier free.

6) **Issue of Disability Certificates:** The Government of India has notified guidelines for evaluation of the disabilities and procedure for certification. The Government will ensure that the persons with disabilities obtain the disability certificates without any difficulty in the shortest possible time by adoption of simple, transparent and client-friendly procedures.

7) **Provide Social Security:** Disabled persons, their families and caregivers incur substantial additional expenditure for facilitating activities of daily living, medical care, transportation, assistive devices, etc. Therefore, there is a need to provide them social security by various means. Central government has been providing tax relief to persons with disabilities and their guardians. The state governments/U.T. administrations have been providing unemployment allowance or disability pension. The State Governments will be encouraged to develop a comprehensive social security policy for persons with disabilities.

8) **Promotion of Non-Governmental Organisations (NGOs):** The National Policy recognises the NGO sector as a very important institutional

mechanism to provide affordable services to complement the endeavours of the government. The NGO sector is a vibrant and growing one. It has played a significant role in the provisions of services for persons with disabilities. Some of the NGOs are also undertaking human resource development and research activities. Government has also been actively involving them in policy formulation, planning, implementation, monitoring and has been seeking their advice on various issues relating to persons with disabilities. Interaction with NGOs will be enhanced on various disability issues regarding planning, policy formulation and implementation. Networking, exchange of information and sharing of good practices amongst NGOs will be encouraged and facilitated. Steps will be taken to encourage and accord preference to NGOs working in the underserved and inaccessible areas. Reputed NGOs shall also be encouraged to take up projects in such areas.

- 9) **Collection of Regular Information on Persons with Disabilities:** There is a need for regular collection, compilation and analysis of data relating to socio-economic conditions of persons with disabilities. The National Sample Survey Organisation has been collecting information on socio-economic conditions of persons with disabilities on regular basis once in ten years since 1981. The census has also started collection of information on persons with disabilities from the Census-2001. The National Sample Survey Organisation will have to collect the information on persons with disabilities atleast once in five years. The differences in the definitions adopted by the two agencies will be reconciled.
- 10) **Research:** For improving the quality of life of persons with disabilities, research will be supported on their socio-economic and cultural context, cause of disabilities, early childhood education methodologies, development of user-friendly aids and appliances and all matters connected with disabilities which will significantly alter the quality of their life and civil society's ability to respond to their concerns. Wherever persons with disabilities are subjected to research interventions, and their family member's or caregivers' consent is mandatory.
- 11) **Sports, Recreation and Cultural Life:** The contribution of sports for its therapeutic and community spirit is undeniable. Persons with disabilities have right to access sports, recreation and cultural facilities. The government will take necessary steps to provide them opportunity for participation in various sports, recreation and cultural activities.

The National Policy for persons with disabilities released by Government of India in 2006 has *inter alia* dealt with:

- 1) Physical rehabilitation strategies.
- 2) Education of persons with disabilities.
- 3) Barrier-free environment.
- 4) Issue of disability certificates, social security.
- 5) Promotion of NGOs.
- 6) Collection of regular information of PWDs.
- 7) Research, sports, recreation and cultural life.
- 8) Future legislation.

2.2.7. Right to Education (RTE) Act, 2009

The Right of Children to Free and Compulsory Education (RTE) Act, 2009 came into force from April 1, 2010. The RTE Act provides for free and compulsory education to children including children with disabilities as mentioned in Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) (PWD) Act, 1995 and the National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999 namely,

- 1) Blindness,
- 2) Low vision,
- 3) Leprosy,
- 4) Hearing impairment,
- 5) Locomotor disabilities,
- 6) Mental retardation,
- 7) Mental illness,
- 8) Autism,
- 9) Cerebral palsy, and
- 10) Speech impairment, learning disabilities, etc. in the age group of 6-14 years at elementary level in a neighbourhood school.

"Child with disability" includes:

- 1) A child with "disability" as defined in clause (i) of Section 2 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995.
- 2) A child, being a person with disability as defined in clause (j) of Section 2 of the National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999.
- 3) A child with "severe disability" as defined in clause (o) of Section 2 of the National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999.

2.2.7.1. Role of RTE Act

The RTE Act provides the following facilities:

- 1) Right to free and compulsory education till completion of elementary education in a neighbourhood school.
- 2) It clarifies that 'compulsory education' means obligation of the appropriate government to provide free elementary education and ensure compulsory admission, attendance and completion of elementary education to every child in the 6 to 14 age group. 'Free' means that no child shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education.
- 3) It makes provisions for a non-admitted child to be admitted to an age appropriate class.

It specifies the duties and responsibilities of appropriate governments, local authority and parents in providing free and compulsory education, and sharing of financial and other responsibilities between the central and state governments.

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- 5) It lays down the norms and standards relating *inter alia* to Pupil-Teacher Ratios (PTRs), buildings and infrastructure, school-working days, teacher-working hours.
- 6) It provides for rational deployment of teachers by ensuring that the specified pupil-teacher ratio is maintained for each school, rather than just as an average for the state or district or block, thus ensuring that there is no urban-rural imbalance in teacher postings. It also provides for prohibition of deployment of teachers for non-educational work, other than decennial census, elections to local authority, state legislatures and Parliament, and disaster relief.
- 7) It provides for appointment of appropriately trained teachers, i.e., teachers with the requisite entry and academic qualifications.
- 8) It prohibits:
 - i) Physical punishment and mental harassment,
 - ii) Screening procedures for admission of children,
 - iii) Capitation fee,
 - iv) Private tuition by teachers, and
 - v) Running of schools without recognition.
- 9) It provides for development of curriculum in consonance with the values enshrined in the Constitution, and which would ensure the all-round development of the child, building on the child's knowledge, potentiality and talent and making the child free of fear, trauma and anxiety through a system of child-friendly and child-centred learning.

2.3. ROLE OF ORGANISATIONS FOR THE EDUCATION OF CHILDREN WITH DISABILITIES

2.3.1. Rehabilitation Council of India (RCI) Act, 1992

The Rehabilitation Council of India (RCI) was set-up as a registered society in 1986. On September, 1992 the RCI Act was enacted by Parliament and it became a Statutory Body on 22 June 1993. The Act was amended by Parliament in 2000 to make it more broad based. The mandate given to RCI is to regulate and monitor services given to persons with disability, to standardise syllabi and to maintain a Central Rehabilitation Register of all qualified professionals and personnel working in the field of Rehabilitation and Special Education. The Act also prescribes punitive action against unqualified persons delivering services to persons with disability.

The Rehabilitation Council of India (RCI) is the apex government body, set-up under an Act of Parliament, to regulate training programmes and courses targeted at disabled, disadvantaged, and special education requirement communities. It is the only statutory council in India that is required to maintain the Central Rehabilitation Register which mainly documents details of all qualified

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professionals who operate and deliver training and educational programmes for the targeted communities. In the year 2000, the Rehabilitation Council of India (Amendment) Act, 2000, was introduced and notified consequently by the Government of India. The amendment brought definitions and discussions provided within the earlier Rehabilitation Council of India Act, 1992, under the ambit of a larger Act, namely, Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995.

The POA was strengthened by the enactment of the RCI Act, 1992. Experience showed that there was no mechanism in the country to standardise and monitor the training of special educators and other rehabilitation professionals in the country. Therefore, in 1992, Parliament of India enacted the RCI Act, subsequently amended in 2000, to establish a statutory mechanism for monitoring and standardising courses for the training of 16 categories of professionals required in the field of special education and rehabilitation of persons with disability.

Training of special educators and resource teachers that can offer support services to children with disabilities in regular schools is the responsibility of RCI. Rehabilitation Council of India (RCI Act, 1992) has supported constructively to the growth and development of disabled persons through growth in professional courses, organisations involved in HRD, etc. More than 45,000 professionals and personnel have registered with RCI and 12,000 (constitute 30%) belong to the area of intellectual disability. About 340 organisations have been recognised.

2.3.1.1. Objective of Rehabilitation Council of India (RCI)

Following are the objectives of Rehabilitation Council of India (RCI):

- 1) To regulate the training policies and programmes in the field of rehabilitation of persons with disabilities,
- 2) To bring about standardisation of training courses for professionals dealing with persons with disabilities,
- 3) To prescribe minimum standards of education and training of various categories of professionals/ personnel dealing with people with disabilities,
- 4) To regulate these standards in all training institutions uniformly throughout the country,
- 5) To recognise institutions/ organisations/ universities running Master's degree/ Bachelor's degree/ P.G. Diploma/ Diploma/ Certificate courses in the field of rehabilitation of persons with disabilities,
- 6) To recognise degree/diploma/certificate awarded by foreign universities/ institutions on reciprocal basis
- 7) To promote research in Rehabilitation and Special Education,
- 8) To maintain Central Rehabilitation Register for registration of professionals/ personnel,
- 9) To collect information on a regular basis on education and training in the field of rehabilitation of people with disabilities from institutions in India and abroad.

- 10) To encourage continuing education in the field of rehabilitation and special education by way of collaboration with organisations working in the field of disability,
- 11) To recognise Vocational Rehabilitation Centres as manpower development centres,
- 12) To register vocational instructors and other personnel working in the Vocational Rehabilitation Centres,
- 13) To recognise the national institutes and apex institutions on disability as manpower development centres, and
- 14) To register personnel working in national institutes and apex institutions on disability under the Ministry of Social Justice and Empowerment.

2.3.1.2. Functions of the Council

Following are the significant functions of the Council:

- 1) **Recognition of Qualifications Granted by University, etc., in India for Rehabilitation Professionals:** The qualification granted by any University or other institution in India which are included in the Schedule shall be recognised qualifications for rehabilitation professional. Any University or other institution which grants qualification for the rehabilitation professional not included in the schedule may apply to the Central Government to have any such qualification recognised and the Central Government after consulting the Council may by notification, amend the Schedule so as to include such qualification therein and any such notification may also direct that an entry shall be made in the last column of the schedule against such qualifications only when granted after a specified date.
- 2) **Recognition of Qualification by Institutions Outside India:** The Council may enter into negotiation with the authority in any country outside India for settling of a scheme or reciprocity for the recognition of qualifications, and the pursuance of any such Scheme, the Central Government may, by notification amend the schedule so as to include therein any qualification which the Council has decided should be recognised and by such notification may also direct that an entry shall be made in the last column of the schedule declaring that it shall be the recognised qualification only when granted after a specified date.
- 3) **Rights of Persons Possessing Qualifications Included in the Schedule to be Enrolled:** Subject to the other provisions contained in this Act, any qualification included in the Schedule shall be sufficient qualifications for enrolment on the Register. No person, other than the rehabilitation professional who possess a recognised rehabilitation qualification and is enrolled in the Register:
 - i) Shall hold office as rehabilitation professional or any such office (by whatever designation called) in Government or in any institution maintained by a local or other authority;
 - ii) Shall practice as rehabilitation professional anywhere in India;
 - iii) Shall be entitled to sign or authenticate any certificate required by any law to be signed or authenticated by a rehabilitation professional

- iv) Shall be entitled to give any evidence in any court as an expert under Section 45 of the Indian Evidence Act, 1872 in any matter relating to the handicapped:
 - a) Provided that if a person possesses the recognised rehabilitation professional qualification on the date of commencement of this Act, he shall be deemed to be an enrolled rehabilitation professional for a period of six months from such commencement, and if he has made an application for enrolment on the Register within said period for six months, till such application is disposed of.
 - b) Any person who acts in contravention of any provision of sub-section (2) shall be punished with imprisonment for a term which may extend to one year or with fine which may extend to one thousand rupees or with both.
- 4) **Power to Require Information as to Courses of Study and Examination:** Every university or institution in India which grants a recognised qualification shall furnish such information as the Council may from time to time, require as to the courses of study and examinations to be undergone in order to obtain such qualification, as to the ages at which such courses of study and examinations are required to be undergone and such qualification is conferred and generally as to the requisites for obtaining such qualification.
- 5) **Inspectors at Examinations:** The Council shall appoint such member of Inspector as it may deem requisite to inspect any University or Institution where education for practicing as rehabilitation professional is given or to attend any examination held by any University or Institution for the purpose of recommending to the Central Government recognition of qualifications granted by that University or Institution as recognised rehabilitation qualifications.

The Inspectors appointed under sub-section (1) shall not interfere with the conduct of any training or examination but shall report to the Council on the adequacy of the standards of education including staff, equipment, accommodation, training and other facilities prescribed for giving such education or of the sufficiency of every examination which they attend.

The Council shall forward a copy of the report of the Inspector under sub-section (2) to the University or Institution concerned and shall also forward a copy, with the remarks of the University or the Institution thereon, to the Central Government.
- 6) **Visitors Examination:** The Council may appoint such number of Visitors as it may deem requisite to inspect any University or institution wherein education for rehabilitation professional is given or attend any examination for the purpose of granting recognised rehabilitation qualifications.
 - i) Any persons whether he is a member of the Council or not, may be appointed as a visitor under sub-section (1) but a person who is appointed as an Inspector under sub-section (1) of Section 15 for any inspection or examination shall not be appointed as a Visitor for the same inspection or examination.

- ii) The Visitor shall not interfere with the conduct of any training or examination but shall report to the Chairperson on the adequacy of the standards of education including staff, equipment, accommodation, training and other facilities prescribed for giving education to the rehabilitation professionals or on sufficiency of every examination which they attend.
- iii) The report of a Visitor shall be treated as confidential unless in any particular case the Chairperson otherwise, directs.
- iv) Provided that if the Central Government requires a copy of the report of a Visitor the Council shall furnish the same.

7) Withdrawal of Recognition: When upon report by the Inspector or the Visitor it appears to the Council:

- i) That the courses of study and examination to be undergone in or the proficiency required from candidates at any examination held by any University or Institution, or
- ii) That the staff, equipment, accommodation training and other facilities for instruction and training provided in such University or Institution do not conform to the standard prescribed by the Council, the Council shall make representation to that effect to the Central Government.

After considering such representation the Central Government may send it to the University or Institution with an intimation of the period within which the University or Institution may submit its explanation to that Government.

On the receipt of the explanation or where no explanation is submitted within the period fixed then, on the expiry of that period, the Central Government after making such further inquiry if any, as it may think fit, may, by notification, direct that an entry shall be made in the schedule against the said recognised rehabilitation qualification declaring that it shall be the recognised rehabilitation qualification only when granted before a specified date or that the said recognised rehabilitation qualification if granted to students of a specified University or Institution shall be recognised rehabilitation qualification only when granted before a specified date, or as the case may be that the said recognised rehabilitation qualification shall be recognised rehabilitation qualification in relation to a specified University or Institution only when granted after a specified date.

- 8) Minimum Standards of Education:** The Council may prescribe the minimum standards of education required for granting recognised rehabilitation qualification by Universities or Institutions in India.
- 9) Registration in Register:** The Member-Secretary of the Council may, on report of an application made by any person in the prescribed manner enter his name in the Register provided that the Member-Secretary is satisfied that such person possess recognised rehabilitation qualification.
- 10) Privileges of Persons who are Registered on Register:** Subject to the condition and restriction laid down in this Act regarding engagement in the

area of rehabilitation of the handicapped by person possessing the recognised rehabilitation qualifications, every person whose name is for the time being borne on the Register shall be entitled to practice as a rehabilitation professional in any part of India and to recover in due course of law in respect of such practice any expenses, charges or respect of medicaments or other appliances or any fees to which he may be entitled.

11) Professional Conduct and Removal of Names from Register: The Council may prescribe standards of professional conduct and etiquette and a code of ethics for rehabilitation professionals. Regulations made by the Council under sub-section (1) may specify which violation thereof shall constitute infamous conduct in any professional respect, that is to say, professional misconduct, and such provision shall have effect notwithstanding anything contained in any other law for the time being in force.

The Council may order that the name of any person shall be removed from the Register where it is satisfied, after giving that person a reasonable opportunity of being heard and after such further inquiry, if any as it may deem fit to make:

- i) That his name has been entered in the Register by error or on account of misrepresentation or suppression of a material fact;
- ii) That he has convicted of any offence or has been guilty of any infamous conduct in any professional respect, or has violated the standard of professional conduct and etiquette or the code of ethics prescribed under sub-section (1) which, in the opinion of the Council, renders him unfit to be kept in the Register.

An order under sub-section (3) may direct that any person whose name is ordered to be removed from the Register shall be ineligible for registration under this Act either permanently or for such period of years as may be specified.

12) Appeal against Order of Removal from Register: Where the name of any person has been removed from the Register on any ground other than that he is not possessed of the requisite rehabilitation qualifications, he may appeal, in the prescribed manner and subject to such conditions, including conditions as to payment of a fee, as may be prescribed to the Central Government whose decision thereon shall be final.

No appeal under sub-section (1) shall be admitted if it is preferred after the expiry of a period of thirty days from the date of the order under sub-section (3) of Section 21.

Provided that an appeal may be admitted after the expiry of the said period of thirty days if the appellant satisfies the Central Government that he had sufficient cause for not preferring the appeal within the said period.

13) Register: It shall be the duty of the Member-Secretary to keep and maintain the Register in accordance with the provision of this Act and any order made by the Council and from time to time to revise the Register and publish it in the Official Gazette.

The Register shall be deemed to be a public document within the meaning of the Indian Evidence Act 1872 and may be proved by a copy thereof.

14) Information to be Furnished by Council and Publication Thereof: The Council shall furnish such reports copies of its minutes abstracts of its accounts and other information to the Central Government as that Government may require.

The Central Government may publish in such manner as it may think fit, any report, copy abstract or other information furnished to it by the Council under this section or under Section 16.

15) Cognizance of Offenses: Notwithstanding anything contained in the code of Criminal procedure 1973, no court shall take cognizance of an offence punishable under this Act except upon a complaint, in writing, made by any person authorised in this behalf by the Council.

16) Protection of Action taken in Good Faith: No suit, prosecution or other legal proceeding shall lie against the Central Government, Council Chairperson, members, Member-Secretary or any officer or other employee of the Council for anything which is in good faith done or intended to be done under this Act.

17) Employees of Council to be Public Servants: The Chairperson members, Member-Secretary, officers and other employees of the Council shall, while acting or purporting to act in pursuance of the provisions of this Act or of any rule and regulation made thereunder be deemed to be public servants within the meaning of Section 21 of the Indian Penal Code.

18) Power to Make Rules: The Central Government may, by notification, make rules to carry out the purposes of this Act.

19) Power to Make Regulations: The Council may, with the previous Section of the Central Government, make, by notification, regulation generally to carry out the purpose of this Act, and without prejudice to the generality of the foregoing power, such regulations may provide for:

- i) The management of the property of the council;
- ii) The maintenance and audit of the account of the council;
- iii) The resignation of members of the council;
- iv) The powers and duties of the Chairperson;
- v) The rules of procedure in the transaction business under sub-section (3) of Section 4;
- vi) The function of the Executive Committee and other committee constituted under Section 7;
- vii) The powers and duties of the Member-Secretary under sub-section (1) of the Section 8;
- viii) The qualification, appointment powers and duties of, and procedure to be followed by Inspectors and Visitors;
- ix) The courses and period of study or of training to be undertaken the subject of examination and standards of proficiency therein to be obtained in any university or any institution for grant of recognised rehabilitation qualification;

- x) The standards of staff, equipment, accommodation, training and other facilities for study or training of the rehabilitation professionals;
- xi) The conduct of examination, qualification of examiners, and the condition of the admission to such examinations;
- xii) The standards of professional conduct and etiquette and code of ethics to be observed by rehabilitation professional under sub-section (1) of Section 21;
- xiii) The particulars to be stated, and proof of qualification to be given, in application for registration under this Act;
- xiv) The manner in which and the condition subject to which an appeal may be preferred under sub-section (1) of Section 22;
- xv) The fees to be paid on application and appeals under this Act; and
- xvi) Any other matter which is to be, or may be, prescribed.

20) **Laying of Rules and Regulations before Parliament:** Every rule and every regulation made under this Act shall be laid as soon as may be after it is made, before each House of Parliament, while it is in session for a total period of thirty days which may be comprised in one session or in two or more successive sessions and if, before the expiry of the session immediately following the session or the successive session aforesaid, both Houses agree in making any modification in the rule or regulation or both Houses agree that the rule or regulation should not be made, the rule or regulation shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule or regulation.

2.3.1.3. National Programmes of RCI

Following are the national programmes that comes under RCI:

- 1) **Scheme of Assistance to Organisations for the Disabled for Manpower Development:** Assistance is made available under this scheme for training programmes with regard to 16 categories of professionals/personnel brought under the RCI Act. The broader objectives of this scheme are to promote the training and to strengthen the existing as well as new organisations.
- 2) **Bridge Course:** RCI launched a National programme of Bridge Course for all in-service Special Teachers and Rehabilitation Workers who have no formal training but they have been working in the field of disability for a long time, i.e., prior to RCI came into existence in June 1993. Now such persons can undergo National Bridge Course Training programme in the area of specific disability for one month at the cost of RCI. The programme provides financial assistance for undergoing the Bridge Course besides travel reimbursement. This makes them eligible for registration with the RCI as Rehabilitation Personnel as per rules. Over 9000 trainees have already completed the Bridge Course and over 150 NGOs, Institutions and Universities were involved in this effort.

3) **Training of the Medical Officers Working in PHCs:** RCI has planned to train about 30,000 medical Doctors of Primary Health Centres/Community Health centres all over the country. The objective of the programme is to enhance the awareness amongst medicos regarding the problems and potential of people with disability. This would equip the PHC doctors with basic requisite knowledge in this area and they would be able to refer such people to the other suitable agencies like Regional Rehabilitation Centres, Composite Regional Resource Centres, etc.

4) The training programme has already started at the selected Rehabilitation Centres involving district hospitals. Over 2000 Medical Officers working in PHCs have been trained. Master Trainers have been identified to conduct the courses. These Master Trainers were given orientation at the State Capital/Apex institutes, etc.

5) **Fellowship and Research Schemes:** The Council is planning to introduce RCI Fellowship Scheme to enable academicians and practitioners both from India and abroad to undertake short term training/study programmes in the field of specialisation of rehabilitation, to enrich their knowledge, acquire skills or undertake a short term research project. The RCI would also consider providing grant in-aid for sponsoring research proposals on any significant theme oriented towards the welfare, empowerment and rehabilitation of the disabled persons.

2.4. NATIONAL INSTITUTE OF DIFFERENT DISABILITIES

As per the Census 2011, the population of persons with disabilities in the country has been estimated at 2.68 crore which is 2.22% of the population of the country. Persons with locomotive disability formed the largest chunk with 20.3% of the total disabled population followed by hearing impaired with 18.9%, visually impaired with 18.8%, speech impaired with 7.5%, mentally retarded with 5.6%, mentally ill with 2.7% and multiple disabled with 7.9%. 18.4% were those who had some disability but were not about the type of their disability. 69% of the persons with disability lived in rural areas and 31% in the urban areas. In contrast the percentage of persons with disabilities in the U.S.A. is 12%, in the U.K. it is 18%, in Germany it is 9%, in Sri Lanka it is 5%, in Pakistan it is 3%. In regard to low percentage of disability in India as compared with other countries, the Secretary, Department of Disability Affairs informed during evidence that children with multiple disabilities are locked in the houses and there could be under counting in 2011 Census.

In order to effectively deal with the multi-dimensional problem of the disabled population, the following National Institutes have been set up in each major area of disability, namely:

- 1) National Institute for the Visually Handicapped, Dehradun,
- 2) National Institute for Orthopaedically Handicapped, Kolkata,

- 3) Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai,
- 4) National Institute for the Mentally Handicapped, Secunderabad,
- 5) National Institute of Rehabilitation Training and Research, Cuttack,
- 6) Institute for the Physically Handicapped, New Delhi, and
- 7) National Institute for Empowerment of Persons with Multiple Disabilities, Chennai.

These institutes are mainly responsible for conducting innovative researches, organise training programmes for manpower development and deliver services in the country.

2.4.1. National Institute of Visually Handicapped (NIVH), Dehradun

National Institute for the Visually Handicapped, Dehradun (NIVH) was established as the National Centre for the Blind in the year 1967. It was renamed as the National Institute for the Visually Handicapped in 1979 and became an autonomous body in the year 1982.

The National Centre for the Blind was upgraded as National Institute for Visually Handicapped in July, 1979. It was registered as an autonomous Institution under the Societies Registration Act, 1860 in October, 1982. The objective of the Institute is to conduct, sponsor and coordinate all aspects of education for rehabilitation of persons with visual disabilities and coordinate research in these areas. The Institutes also assisted in running a Composite Regional Centre (CRC) for persons with disabilities at Sundernagar in Himachal Pradesh.

This apex level Institute is engaged in education, vocational training, training of teachers and other personnel, research and development of service modules, production of Braille books, aids and appliances for the visually handicapped.

2.4.1.1. Activities of NIVH, Dehradun

The Institute is engaged in HRD activities which include degree, diploma and certificate level courses in special education, orientation and mobility, refresher/orientation courses for field functionaries and service providers, diploma and certificate courses in vocational training and schooling for visually impaired children up to higher secondary level.

Some of these courses are being conducted at the Institute's Headquarters, Regional Centre, Chennai and CRC, Sundernagar while others are being conducted in collaboration with State Governments and reputed NGOs in the field of visual disability either with full or partial funding. During the year 2012-13, HRD and training programmes were conducted across 20 States and Union Territories, in 14 official languages. A total of 9,750 persons benefited.

2.4.1.2. Academic Courses Run by NIVH

The Institute's Department of Special Education and Disability Studies was set up in 1984. It has contributed nearly 9000 teachers and mobility instructors which comprise 71% of the trained teachers for the blind in the country. The details of the courses of the institute are as follows:

- 1) M.Ed. Special Education (Visual Impairment), 1 year,
- 2) B.Ed. Special Education (Visual Impairment), 1 year,
- 3) Bachelor Degree in Mobility Science (Visual Impairment), 1 year,
- 4) Diploma in Special Education (Visual Impairment), 2 years,
- 5) Diploma in Special Education (Hearing Impairment), 2 years, and
- 6) Diploma in Special Education (Mental Retardation), 2 years.

During the year 2012-13, 154 short-term training programmes were designed and delivered across 20 states covering 8,263 beneficiaries. Vocational Training Centres at the Headquarters and the Regional Centre, Chennai had extended training opportunities to 409 blind persons.

Regarding the education for school children, the Ministry have informed that the Institute's Model School for the Visually Handicapped is one of the oldest educational institutions affiliated to CBSE, imparting education to children with visual impairment representing a broad spectrum of society.

The school offers education from the preschool stage upto higher secondary level and is equipped to impart functional education to visually impaired multi-handicapped children as well. Apart from running a Model School for the Visually Impaired Children, new models for providing need based and quality education, have also been developed by the Institute.

2.4.1.3. Braille Press

The Central Braille Press, the Regional Braille Press, Chennai, and Small Scale Braille Printing Units at Aizawl, Agartala and Shillong contributed Braille text books for children studying in the States of Delhi NCR Region, Himachal Pradesh, Karnataka, Meghalaya, Tamil Nadu, Tripura, Orissa and Uttar Pradesh. The workshop for manufacturing braille appliances at head quarter of the Institute also supplied Braille kits comprising devices for writing, computing and for learning Science, Geography and Mathematics to children enrolled under SSA schools in 12 States.

The Central Braille Press and Institute's Workshop for Manufacturing Braille Appliances is presented. These departments were established as far back as 1951 and 1952 respectively and they were the sole providers of Braille appliances and Braille books for a decade or so. However, in late 50s, the National Association for the Blind established a Braille Press at Mumbai. In all, there are 19 Braille Presses in the country today, of which, nine have been set up by the Government and others by voluntary organisations.

2.4.1.4. Placement Services Offered by NIVH

The Placement Unit was set up in the Institute in the year 1984 to develop model placement services and to identify suitable posts in the organised and unorganised sectors for the blind and low vision persons. This Unit enjoys the status of a Special Employment Exchange. Accordingly, it maintains a register of unemployed blind and low vision persons. During the year 2012-13, it sponsored 1981 candidates to Government, Public Sector and Private Agencies. It was also successful in securing employment for 73 candidates.

2.4.2. National Institute for Orthopaedically Handicapped (NIOH), Kolkata

National Institute for the Orthopaedically Handicapped was established in Kolkata in the year 1978. It was registered in April, 1982, under the Societies Registration Act, 1860. The mission of the Institute is to develop human resources for providing rehabilitation services to persons with locomotor disabilities, providing of services in rehabilitation, restorative surgery, aids/ appliances, etc.

The Institute is responsible for development of manpower for providing services, namely, training of physiotherapists, occupational therapists, orthotics and prosthetic technicians, employment and placement officers etc. NIOH also develops model services in the areas of restorative surgery, aids and appliances, vocational training etc. for the orthopaedically handicapped population. It conducts and sponsors research in all aspects, relating to the total rehabilitation of the orthopaedically handicapped people and is involved with standardising aids and appliances for the orthopaedically handicapped and promoting their manufacture and distribution.

Academic Courses Offered by the Institute

16 long-term courses are offered by the Institute which include:

- 1) DNG (PMR – 2/3 years,
- 2) Masters in Physiotherapy – 2 years,
- 3) Masters in Occupational Therapy – 2 years,
- 4) Masters in Prosthetics and Orthotics – 2 years,
- 5) Masters in Nursing – 2 years,
- 6) Post Graduate Diploma in Disability Rehabilitation and Management – 1 year,
- 7) Post Graduate Diploma in Rehabilitation Engineering – 1 year,
- 8) Bachelor in Occupational Therapy – 4 ½ years,
- 9) Bachelor in Physiotherapy – 4 ½ years,
- 10) Bachelor in Prosthetics and Orthotics – 4 ½ years,
- 11) Post Basic Diploma in Orthopaedics and Rehabilitation Nursing – 1 year,
- 12) Diploma in Rehabilitation Therapy – 2 ½ years,
- 13) Diploma in Hearing, Language and Speech – 1 year,
- 14) Diploma in Tool and Die Making – 4 years,
- 15) Certificate in Prosthetics and Orthotics Technician – 1 year,
- 16) Certificate in CAD-CAM (for PWLD candidate) – 1 year. The short-term courses (25 NOs./year) include Continuing Rehabilitation, Education for Professionals, Workshop Seminar/Awareness and Sensitisation Programme for Professionals and Govt. officials.

2.4.2.1. Rehabilitation Services Provided by the Institute

Rehabilitation services provided by the Institute include:

- 1) Institutional Services:
 - i) Medical rehabilitation,
 - ii) Physiotherapy,
 - iii) Occupational therapy,
 - iv) Prosthetics and Orthotics,
 - v) Socio-economic rehabilitation,
 - vi) Rehabilitation nursing,
 - vii) Rehabilitation Engineering,
- 2) Community-based rehabilitation,
- 3) Outreach services through camps, and
- 4) Services through RCs and CRCs.

2.4.3. Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNHH)

The Ali Yavar Jung National Institute for the Hearing Handicapped was established on 9th August, 1983 under the Societies Registration Act, 1860. The Institute has been established for manpower development, research, clinical and therapeutic services, outreach, and extension services for the persons with hearing disabilities.

The Institute is responsible for development of manpower by undertaking or sponsoring the training of trainees and teachers, employment officers, psychologists, vocational counsellors and such other personnel as may be deemed necessary by the Institute for promoting the education, training or rehabilitation of the hearing handicapped. The Institute sponsors, coordinates and subsidizes research into all aspects of the education and rehabilitation of the hearing handicapped. It is also developing model services for rehabilitation of the hearing handicapped.

2.4.3.1. Services Provided by the Institute

The services provided by this institute are as follows:

- 1) Evaluation and diagnosis of hearing and speech-language impairment.
- 2) Selection and fitting of hearing aids and ear moulds.
- 3) Certification hearing disability.
- 4) Educational evaluation and guidance to parents.
- 5) Vocational counselling, training and placement.
- 6) Speech and language therapy.
- 7) Psychotherapy, behaviour therapy and play therapy.
- 8) Medical consultation and guidance.
- 9) Referral and follow-up services.
- 10) Parent Infant Programme and pre-school services.
- 11) National Open School—Special Accredited Institution for Education of the Disabled.
- 12) Parents' guidance and counselling.

- 13) Outreach and extension services.
- 14) Material development, distribution and guidance through correspondence.
- 15) Information documentation and dissemination services.
- 16) Technical guidance to various agencies.

The Institute provides the best possible services in terms of evaluation, therapeutic treatment and hearing aid fitment. The Institute provides free services for persons with hearing handicap whose monthly income is below ₹5000/- . The beneficiaries can take prior appointment, if they desire. Patients are advised to bring their monthly income certificate from the Tahasildar, MP, MLA, Municipal Counsellor, Sarpanch, and Employer. As the evaluation process may take 2/3 days, and due to non-availability of sufficient accommodation at the Institute, patients have to make their own arrangement to stay at Mumbai.

2.4.3.2. Training Programmes

Top priority is given to training since well-developed manpower is one of the most important prerequisites for better networking of the services. It is through training that a cadre of highly specialised professionals, as well as grassroot level personnel are created to meet the needs of persons with hearing handicap.

To meet this need, the Institute conducts several long-term and short-term training programmes at AYJNISHD, Mumbai and its Regional Centres at New Delhi, Kolkata, Secunderabad and Bhubaneshwar.

Long-Term Training Programmes

Long-term training programmes accredited by RCI are as follows:

- 1) Diploma in Hearing, Language and Speech (DHLS) at New Delhi and Kolkata.
- 2) Diploma in Special Education (Hearing Impaired) at various centres.
- 3) Bachelor of Education (Hearing Impaired) at Mumbai.
- 4) Bachelor of Special Education at Secunderabad.
- 5) Bachelor of Education (Hearing Handicapped) at Kolkata.
- 6) Bachelor Degree in Audiology and Speech Language Pathology at Mumbai.
- 7) Bachelor Degree in Hearing, Language and Speech at Secunderabad.
- 8) Bachelor Degree in Audiology and Speech Rehabilitation at Kolkata.
- 9) Master Degree in Audiology and Speech Language Pathology at Mumbai.
- 10) Master of Education (Hearing Impaired) at Mumbai.

Programmes accredited by state governments are:

- 1) Certificate Course in DTP at Mumbai.
- 2) Certificate Course in Information Technology for Hearing Handicapped at Mumbai and Kolkata.

Short-Term Training Programmes

These Programmes includes workshops, seminars and refresher courses designed to update and develop professional practices and skills. These programmes also train grass-root level personnel such as Anganwadi workers, Health workers etc. and parents to participate in community-based rehabilitation for the persons with hearing handicap in India.

2.4.4. National Institute of Mentally Handicapped (NIMH), Secundrabad

The Institute was registered in the year 1984 under the Societies Registration Act, 1860 as an autonomous body under the administrative control of the Ministry of Social Justice and Empowerment. The Institute has been established with the objective to prepare human resources equipped to deliver services through quality models of rehabilitation, based on life cycle needs.

The National Institute for the Mentally Handicapped (NIMH) is committed to develop models of care for the mentally handicapped persons, conduct research in the area of mental handicap, and promote human resource development to work with mentally handicapped persons in the country.

2.4.4.1. Academic Programmes Run by the Institute

The Ministry have informed that manpower development is one of the prime objectives of NIMH since there is a wide gap between the need for the professionals with that of the actual availability to extend services for persons with mental retardation.

- 1) Keeping this in view, NIMH has designed and developed 13 long-term academic programmes till date. NIMH has been conducting long-term academic programmes 34 starting from Diploma level (to meet the grass-root level requirements) to post postgraduate programmes (to conduct research studies). In addition to this, Certificate and Short-term Courses are conducted to update the in-service candidates with the latest developments. NIMH conducts 10 long-term training programmes. (4 Diploma courses, 1 Graduate, 5 Post Graduate courses, which include 1 M.Phil. programme).
- 2) The Institute conducts certificate courses, each lasting for one month duration benefiting professionals from various disciplines such as special educators, psychologists, speech therapists, occupational therapists, vocational instructors, etc., from various parts of the country. The Institute conducts 50-60 short-term training programmes every year.
- 3) Regarding the involvement of parents, it has been stated that the objective of this programme is to involve parents care, management and training of their children. The programme also encourages mutual support among parents and exchange of ideas and information.
- 4) Research and development is one of the important objectives of NIMH. The Institute has so far completed 64 research projects. Research data on mental retardation with respect to the psycho-physiological and socio-demographic features of Indian background still requires emphatic attention. The research avenues on basic and applied areas have also wide scope for enhancing the therapeutic intervention to persons with mental retardation. NIMH published 97 publications so far as an outcome of its research activities.
- 5) NIMH provides various models of rehabilitation services such as Centre based, Home based, Community based, Mobile Services, etc. The community/outreach rehabilitation programmes have more relevance because

about 70% of the Indian population live in the rural areas whereas service facilities are, predominantly, available in urban areas. To reach these un-reached communities, Institute undertakes many Community and Outreach programmes for persons with mental retardation and other disabilities. The various programmes are:

- i) Distribution of aids and appliances through ADIP Scheme.
- ii) Conducting various training/orientation programmes at North-East Region
- iii) Community Based Rehabilitation Programmes, and
- iv) Documentation and dissemination of information.

2.4.5. Swami Vivekananda National Institute of Rehabilitation, Training and Research (SVNIRTAR), Cuttack

NIRTAR, originally, started as an adjunct Unit of ALIMCO, Kanpur, NIRTAR was registered in 1984 under the Societies Registration Act, 1860 as a National Institute. The aims and objectives of the Institute are human resources development, implementation of service delivery programmes, research and outreach programmes.

It undertakes, sponsors or coordinates training for rehabilitation of personnel and conducts research on bio-medical engineering and surgical or medical subjects for orthopaedically handicapped.

The Institute produces and distributes aids and appliances. It develops models of service delivery programmes for rehabilitation. NIRTAR also undertakes vocational training, placement and rehabilitation of the physically handicapped.

2.4.5.1. Academic Courses Offered by the Institute

- 1) The HRD courses of the Institute include 5 long-term courses like 4 ½ years BPT, BOT, BPO courses and 2 years MPT & MOT courses affiliated to Utkal University.
- 2) The Institute also runs Diplomat National Board (DNB) in Physical Medicine and Rehabilitation (PMR) conducted by National Board.
- 3) The Institute conducts 12 Short-term Courses every year.

2.4.5.2. Rehabilitation Therapies Provided by the Institute

The Institute gives medical treatment and therapies:

- 1) A pioneer in corrective surgeries of different deformities both congenital and acquired.
- 2) Runs a 100 bedded hospital.
- 3) Provides comprehensive services to patients with various types of locomotor disabilities through Departments of Physical Medicine and Rehabilitation, Physiotherapy, Occupational Therapy and Prosthetics and Orthotics.

- 4) One of the major activities of the Institute is fabrication and fitment of Prosthetic and Orthotic appliances to the persons with locomotor disabilities.
- 5) Several assessment camps and surgical camps at various places in collaboration with local administration/NGOs are conducted.
- 6) Institute also provides therapeutic rehabilitation services (Physiotherapy and Occupational Therapy) to persons with disabilities, through its three sub-centres at Dhenkanal, Cuttak and Bhubaneswar.

2.4.6. Pandit Deen Dayal Upadhyaya Institute for the Physically Handicapped (IPH), New Delhi

The Pandit Deen Dayal Upadhyaya Institute for the Physically Handicapped (IPH), New Delhi was set up on 12th November, 1976 under the Societies Registration Act, 1860. The major objective of the Institute is to develop trained manpower for rehabilitation of persons with orthopaedically disabled persons, provide outreach services and research.

The Institute offers education, training, work-adjustment and such other rehabilitative services so that the society may deem fit to orthopaedically handicapped persons with associated mental retardation or such other associated handicaps who are not considered incompatible with the development of a harmonious educational, training or workshop programme.

IPH also undertakes the training of physiotherapists and occupational therapists. Besides it has a facility for manufacture and distribution of such aids and appliances as are needed for the education, training and rehabilitation of the handicapped.

2.4.6.1. Academic Courses Offered by the Institute

The long-term courses offered by the Institute are:

- 1) 3 degree level courses namely Bachelor of Physical Therapy, Bachelor of Occupational Therapy and Bachelor of Prosthetics and Orthotics courses of 4 ½ years duration in affiliation with the University of Delhi.
- 2) Diploma in Special Education (VI) at CRC Lucknow.
- 3) Three Degree level courses, one Post Graduate Diploma and one Undergraduate Diploma course at CRC Srinagar.

2.4.6.2. Rehabilitation Services Offered by the Institute

- 1) The Institute runs outdoor services for providing therapeutic treatment to patients with disabling conditions like Paraplegia, Haemiplegia, Arthritis, Cerebral Palsy, Post-Polio Residual Paralysis, Congenital Anomalies, Speech Therapy, etc.
- 2) Distributes tailor made as well as readymade aids and appliances.
- 3) Psychological and social counselling and vocational guidance to PWDs and their family members.
- 4) Information about facilities and concession provided by Government.

The Institute facilitated the establishment of Composite Regional Centre (CRC) at Lucknow, UP and Southern Regional Centre at Secunderabad and facilitated activities at CRC, Srinagar and organising camps to extend services to different districts in collaboration with District Administration and local NGOs. IPH runs an Integrated Primary School (upto Vth Standard) to provide education to children with locomotor disabilities including cerebral palsy. It is recognised by the Education Department of Municipal Corporation of Delhi.

2.4.7. National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD), Chennai

The government has set-up this new institute at the total project cost of ₹61.90 crores comprising of land cost of ₹39.20 crores (notional), non-recurring cost of ₹18.10 crores and a recurring cost of ₹ 4.60 crores. Government of Tamil Nadu has provided the land for this institute. Government of India is providing the financial support for construction of the building of the institute and other activities. The institute has started clinical services and short-term training programmes for caregivers from July 2005.

National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD) established in the year 2005, on East Coast Road, Muttukadu, Chennai, Tamil Nadu, (about 30km from Chennai Central railway station, Mofussil bus terminus and airport) under Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice and Empowerment, Government of India, to serve as a national resource center for empowerment of persons with multiple disabilities such as those with two or more disabilities in a person. The disabilities enumerated as per PWD (1995) Act, are Low Vision, Blindness, Locomotor Disability, Hearing Impairment, Mental Retardation, Mental Illness, Leprosy Cured Persons and as per The National Trust (1999) Act, are Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities.

2.4.7.1. Objectives of the Institute

The main objectives of the institute are as follows:

- 1) To undertake development of human resources for management, training rehabilitation, education, employment and social development of persons with multiple disabilities.
- 2) To promote and conduct research in all areas relating to multiple disabilities
- 3) To develop trans disciplinary models and strategies for social rehabilitation and to meet the needs of diverse groups of people with multiple disabilities.
- 4) To undertake services and outreach programmes for the persons with multiple disabilities.

2.4.7.2. Academic Courses Run by the Institute

The NIEPMD runs the Human Resource Development Course as given below:

- 1) Post Graduate Diploma in Neuro Developmental Therapy (One Year),
- 2) Bachelor's in Education (Multiple Disabilities) (One Year),
- 3) D.Ed Special Education (Autism Spectrum Disorder) (One Year),

- 4) D.Ed Special Education (Deaf blindness) (Two Years),
- 5) D.Ed Special Education (Cerebral Palsy) (Two Years),
- 6) Certificate Course in Prosthetic and Orthotic (One Year),
- 7) Master in Philosophy (Clinical Psychology) (Two Years), and
- 8) Post Graduate Diploma in Early Intervention (One Year + 3 months internship) Rehabilitation services offered.

2.4.7.3. Rehabilitation Services

The institute offers the following rehabilitation services for persons with multiple disabilities:

- 1) Medical Treatment:
 - i) First aid services, and
 - ii) Medicines for epilepsy, psychiatric disorder are given free of cost.
- 2) Referral Services
 - i) Dental care from Ragas Dental College, Chennai,
 - ii) Intractable seizures and psychiatric illness – referral to NIMHANS, and
 - iii) Ophthalmic referral to Shankar Netralaya, Chennai.

The NIEPMD has also taken up some R&D projects. The details of which are:

- 1) Genetic profiling for clients with multiple disabilities – genetics of consanguinity,
- 2) Study of sleep patterns in children with multiple disabilities and its effects in day to day functioning,
- 3) Study on ventilator pattern, parameters and intervention for the clients with spastic quadriplegic cerebral palsy,
- 4) Existing service provisions for persons with multiple disabilities in India – a database compilation,
- 5) Technology adaptation for persons with multiple disabilities with multi-sensory impairment in skill training set up through mechatronic devices.

2.5. COMPOSITE REGIONAL CENTRES (CRCs)

2.5.1. Introduction

Regional Rehabilitation Centres in five Composite Regional Centres (CRCs) for the persons with disabilities are located at Srinagar, Lucknow, Bhopal, Sundernagar and Guwahati. These centres conduct training programmes to prepare professionals in the field of rehabilitation as well as provide rehabilitation services to the disabled. Four Regional Rehabilitation Centres for Spinal Injuries and other Orthopaedic Disabilities at Mohali, Cuttack, Jabalpur and Bareilly are providing services for basic management and follow-up of the spinaly injured so as to make the affected persons functionally independent. Artificial Limbs Manufacturing Corporation of India (ALIMCO), Kanpur, is a public sector body, engaged in manufacturing of aids and appliances for persons with disabilities.

The products manufactured by the corporation conform to ISI standards approved by the Bureau of Indian Standards. Marketing of products organised through Regional Marketing Centres at Kolkata, Mumbai, Chennai, Bhubaneswar and Delhi and also through National Institutes, and voluntary organisations.

To overcome the lack of adequate facilities for rehabilitation of Persons with Disabilities, the Ministry of Social Justice & Empowerment has set-up seven Composite Regional Centres for Persons with Disabilities at Srinagar (J&K), Sundernagar (Himachal Pradesh), Lucknow (U.P.), Bhopal (M.P.), Guwahati (Assam), Patna (Bihar), Ahmedabad (Gujarat) and Kozhikode (Kerala) to provide both preventive and promotional aspects of rehabilitation like education, health, employment and vocational training, research and manpower development, rehabilitation for persons with disabilities, etc.

Composite Regional Centre for Persons with Disabilities (CRC) is a service modality set under the Ministry of Social Justice & Empowerment, Government of India. There are national institutes and other apex bodies in each area of disability in different parts of India under the same ministry. The ministry has set-up five CRCs in different parts of India. CRC at Bhopal is one of them and has become functional since August 2000. Apart from undertaking centre-based and camp-based rehabilitation related activities, it also functions as resource centre for persons with disabilities.

2.5.2. Aim of Composite Regional Centres (CRCs)

The basic aim of CRC is to create resources and infrastructure required for developing services for persons with disabilities including human resource development and research. The centre is for facilitating capability at local levels rather than letting it centralise in urban areas.

2.5.3. Beneficiaries of Composite Regional Centres (CRCs)

Persons having different disabilities, served by the centre, include persons with Locomotor Disability, Blindness, Low-vision, Hearing Impairment, Mental Retardation, Mental Illness, Leprosy Cured, Cerebral Palsy, Autism Spectrum Disorder, and Multiply Disabled of all ages. Special emphasis is given to early intervention.

2.5.4. Team of Experts

A team including Audiologist, Clinical Psychologist, Occupational Therapist, Orientation and Mobility Instructor, Physical Medicine and Rehabilitation Specialist, Physiotherapist, Prosthetic and Orthotic Engineer, Rehabilitation Officer, Special Educationist, Speech and Language Pathologist, and Vocational Instructor work at the centre on principles of trans-disciplinary approach.

2.6. DISTRICT DISABILITY REHABILITATION CENTRES (DDRCS)

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

The District Disability Rehabilitation Centres are set-up under the Plan Scheme "Scheme for implementation of Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act 1995 (SIPDA). Initially, establishment of DDRCS started as an outreach activity of this ministry for providing comprehensive services to the persons with disabilities at the grass root level and for facilitating creation of the infrastructure and capacity building at the district level for awareness generation, rehabilitation and training of rehabilitation professionals.

2.6.1. Features of DDRC

Following are the some main features of DDRC:

- 1) DDRC is an initiative to facilitate comprehensive services to persons with disabilities in the rural areas.
- 2) These units have a group rehabilitations professionals for providing services like identification of persons with disabilities, awareness generation, early detection and intervention, provision/fitment, follow up and repair of assistive devices, therapeutic services, e.g., physiotherapy, speech therapy, etc., and facilitation of disability certificate, bus passes and other concession/facilities for persons with disabilities.
- 3) Best results can be achieved if this unit works in coordination with Department of Health, Education, WCD, rural development and revenue.

2.6.2. Objectives of setting up of DDRC

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

- 1) Survey and identification of persons with disabilities through camp approach;
- 2) Awareness generation for encouraging and enhancing prevention of disabilities, early detection and intervention, etc.
- 3) Early intervention;
- 4) Assessment of need of assistive devices, provision/fitment of assistive devices, follow up/repair of assistive devices;
- 5) Therapeutic Services, e.g., Physiotherapy, Occupational Therapy, Speech Therapy, etc.;

- 6) Facilitation of disability certificate, bus passes and other concession/facilities for persons with disabilities;
- 7) Referral and arrangement of surgical correction through government and charitable institutes;
- 8) Arrangement of loans for self-employment, through banks and other financial institutions;
- 9) Counselling of persons with disabilities, their parents and family members;
- 10) Promotion of barrier free environment; and
- 11) To provide supportive and complimentary services to promote education, vocational training and employment for persons with disabilities through:
 - i) Providing orientation training to teachers, community and families.
 - ii) Providing training to persons with disabilities for early motivation and early stimulation for education, vocational training and employment.
 - iii) Identifying suitable vocations for persons with disabilities, keeping in view local resources and designing and providing vocational training and identifying suitable jobs, so as to make them economically independent.
 - iv) Provide referral services for existing educational training, vocational institutions.

2.6.2.1. Action plan of DDRCs

Action plan of DDRCs should broadly be as follows:

- 1) Survey of the PwDs and their needs in the districts-10-15 villages per month,
- 2) Assessment camps at HQ-Twice in a week,
- 3) At civil hospital-once every week,
- 4) Assessment cum distribution camps at villages-twice a month,
- 5) Awareness generation activities like visits to school/awareness camp in villages for various target groups/training programme of grass root level functionaries-4 times a month, and
- 6) Follow up camps in villages-4 times a month.

2.6.2.2. Rehabilitation Services Provided by DDRC

The major rehabilitation services that are expected to be provided through DDRC are:

- 1) Facilitation and provision of disability certificates.
- 2) Assessment on the need of assistive devices.
- 3) Provision/Fitment of assistive devices.
- 4) Follow up/repair of assistive devices.
- 5) Therapeutical services (Speech Therapy, OT, PT, Mobility Instructions).
- 6) Promotion of barrier free environment.
- 7) Encouraging and enhancing prevention of disabilities, early detection and intervention.
- 8) To provide supportive and complimentary services to promote education, vocational training and employment for persons with disabilities.
 - i) Providing orientation training to teachers, community and families.
 - ii) Providing training to PWDs for early motivation and early stimulation for education, vocational training and employment.

- 9) Identifying suitable vocations for Persons with Disabilities (PWDs), keeping in view local resources and designing vocational trainings. Providing vocational training and identifying suitable jobs, so as to make them economically independent.
- 10) Provide referral services for existing educational, training, vocational institutions.
- 11) Preschool/parent infant programme..

2.6.2.3. Roles and Responsibilities

DDRCs is a joint venture of Central and State Government. Their roles can be summarised as follows:

- 1) Role of Central Government:
 - i) Funding for manpower deployed and contingencies as well as equipments required for DDRCs for initial three years through implementation of PWD Act Scheme (5 yrs for NE states and J&K). Later through Deendayal scheme DRS for rehabilitation on tapering basis.
 - ii) Technical inputs through training to staff of districts, implementing agencies and DDRCs
- 2) Role of state Govt. /District Admin:
 - i) Provision of rent-free, well-connected building/space having provisions of electricity and water. The support system, e.g., telephones facility, furniture, etc., for running the District Centres is also to be provided by State government. Space required is approx 150sq.m. Funds from MPLAD, etc., could be explored for improvement /construction of infrastructure.
 - ii) Identification of implementing agencies, deployment of manpower.
 - iii) Overall supervision, coordination and evaluation.
 - iv) Monitoring and coordination of activities of DDRCs, its convergence with other activities of district.

District Management Team (DMT)

District Management Team (DMT) under chairmanship of District Collector is the main decision making body. Important functions are:

- 1) Selection of registered implementing agencies.
- 2) Deployment of manpower and their service conditions.
- 3) Monitoring, coordination of activities of DDRC, even after handover.
- 4) Convergence with other activities of district.
- 5) Finalisation of charges for various services provided through DDRCs and identifying other means of resource generation.
- 6) Security of assets of DDRC and material received under ADIP, etc.
- 7) DMT also needs to make an attempt to make DDRC self-sustaining in long run. Hence it needs to fix nominal charges for various services provided through DDRCs. Attempts should also be made for resources generation through donations and other means.

2.7. NON-VOLUNTARY GOVERNMENT ORGANISATIONS (NGOS)

2.7.1. Introduction

Non-Government Organisations (NGOs) comprise a team of people who are flexible in their operation. They provide a wide range of services covering one or more disabilities. NGOs are classified into two types:

1) **National NGOs:** The Government of India has constructed legal frameworks for promoting voluntarism and giving it a perspective as well as defined system, wherein the organisations are answerable to the law and justice system of the country. The NGOs who have contributed to the cause of promoting equal rights and opportunities for the persons with disabilities are mentioned below:

- i) Thakur Hari Prasad Institute of Research and Rehabilitation for the Mentally Handicapped,
- ii) Blind People Association (BPA),
- iii) Spastic Society of Tamil Nadu (SPASTN), and
- iv) Amar Jyoti.

2) **International NGOs:** These are those NGOs which are working in various countries for the benefit of persons with disabilities. It has become an integral part of the people with disability as it has changed their quality of life. It works on various aspects including education, vocational trainings, independent living, etc. The prominent international NGOs who have contributed to the cause of promoting equal rights and opportunities are as follows:

- i) Action Aid,
- ii) Handicap International,
- iii) Helen Keller International, and
- iv) Rehabilitation International.

2.7.2. Role of Non-Governmental Organisation (NGOs)

The role of Non-Government Organisation (NGOs) is as follows:

1) **Employment:** The Government shall:

- i) Identify posts for PWD in public establishments and update the list every three years,
- ii) Reserve not less than 3 per cent of identified posts for PWD, with 1 percentage reserved for people with blindness/low vision, hearing impairment, locomotor disability or cerebral palsy respectively (though any department or establishment can be exempted by notification),
- iii) Every employer should have a record of all PWD employed in that establishment,
- iv) Governments and local authorities shall formulate schemes for promotion of employment of PWD which may provide for training of PWD, relaxation of age limits in employment, measures related to OHS, provisions for financing such schemes, etc.,

- v) Reservation is not less than 3 per cent in all poverty alleviation schemes,
- vi) Within the limits of their economic capacity and development, and
- vii) Governments shall provide incentives to both public and private sectors for employment of PWD with a target of atleast 5 per cent of their workforce to be PWD.

2) **Prevention and Early Detection of Disabilities:** All commitments in this area are given with the proviso "within the limits of their economic capacity and development". With proviso, Governments should:

- i) Undertake surveys on causes of disability,
- ii) Promotes "various methods" for preventing disabilities,
- iii) Screen children atleast once a year for identifying at-risk cases,
- iv) Provides facilities for training PHC staff,
- v) Conduct or sponsor awareness campaigns on hygiene, health and sanitation, and on causes and prevention of disabilities, and
- vi) Take measures for pre-and post-natal care of mother and child.

3) **Affirmative Action:** Governments shall frame schemes for:

- i) Provision of aids and appliances to PWD, and
- ii) Preferential allotment of land for housing, business, recreation centres, special schools, research centres, and factories run by PWD entrepreneurs.

4) **Non-Discrimination in Access:** With proviso, Governments should:

- i) Adapt all forms of transport to make them accessible to PWD, and
- ii) Provides for a variety of assistive devices in the built environment, including auditory signals, ramps in public buildings and health facilities, braille signage, accessible curbing, marked zebra and railway.

2.7.3. Role of International Organisations

International organisations are playing very important role for the overall development of persons with disability. Some of the international organisations are as follows:

1) **UNESCO:** It is United Nations Educational, Scientific and Cultural Organisation. The main objective of UNESCO is to contribute peace and security in the world. It performs five principal functions:

- i) What forms of education, science, culture and communication for tomorrow's world?
- ii) The advancement, transfer and sharing of knowledge,
- iii) Preparation and adoption of international instruments and statutory recommendations to member states for their development policies, and
- iv) Exchange of specialised information.

2) **UNICEF:** It is United Nations Children's Fund. It works for the right of the children, preventing diseases in children, helping educate children, and providing nutritious food. The educational strategies of UNICEF are:

- i) Improving the quality of education, quality of learners, quality of teaching, quality of the environment for learning and quality of learning achievement,

- ii) Enriching the development of young children by different campaigns and programmes,
- iii) Inclusion of excluded children by using non-formal approaches like multi-grade teaching, flexible hours for working children, adult education, etc.,
- iv) Ensures education for girls by eliminating the barriers,
- v) Ensures education for children in conditions of crisis, violence and instability, and
- vi) Ensures education for children affected by HIV/AIDS.

3) **UNFPA:** It is known as United Nations Fund for Population Activities. It helps developing countries to fund for the solution to their population problems. The major objectives are:

- i) To assists developing countries in providing reproductive health and family planning services,
- ii) To promotes cooperation and coordination among United Nations Organisation, bilateral agencies, government and non-government organisation and the private sector in addressing the issue of population and development, and
- iii) To advances the strategy endorsed by the 1994 International Conference on Population and Development (ICDP) and reviewed by a special session of the United Nations General Assembly in 1999.

4) **WHO:** It is World Health Organisation. Its objectives are:

- i) To assists government in strengthening health service,
- ii) To establish and maintains administrative and technical service,
- iii) To promotes improved nutrition, housing, sanitation, etc.,
- iv) To promotes cooperation among scientific and professional groups which contribute to the enhancement of health,
- v) To proposes international conventions and agreements on health matters,
- vi) To develops international standards for food, biological and pharmaceutical products, and
- vii) To assists in developing an informed public opinion among all people on matters of health.

2.7.4. Limitations of NGOs

The limitations of NGOs are:

- 1) They lack, sometimes, professionalism and public accountability,
- 2) Service delivery programmes are not cost-effective and also not of very high quality,
- 3) The growth and coverage of NGO programmes is uneven,
- 4) These NGOs are urban-based,
- 5) They have the fear that the credit for their achievement is taken by government,
- 6) They do not learn from each other. Instead of this, they create unhealthy competition,
- 7) They are not self-reliant, and they always look for outside support, and
- 8) They do not play a wider role which they are capable of playing.

2.7.5. Problems Faced by NGOs

There are some problems which NGO and government faces in their relationship, some of them are:

- 1) They are unable to identify genuine agencies in voluntary sector,
- 2) Lack of availability of services for the person with disability,
- 3) Presence of government in rural sector,
- 4) Government provides improved salary structure to the people associated with it,
- 5) Government provides better conditions related to grants-in-aid,
- 6) Government of India has strong Human Resource Development (HRD) department,
- 7) There should be periodical orientation programme for orientation of staff of government agencies with various schemes, and
- 8) There should be coordination among different voluntary organisation.

2.8. EXERCISE

2.8.1. Very Short Answer Type Questions

- 1) Write full form of RTE.
- 2) What is non-governmental organisation?
- 3) What is national trust?
- 4) Write some objectives of DDRC.
- 5) Write aims of CRCs.

2.8.2. Short Answer Type Questions

- 1) What are the educational provisions in the UN Convention on the Rights of Person with Disabilities (UNCRPD), 2006?
- 2) Describe the role of national trust.
- 3) Describe the role of NGOs.
- 4) Focus on National Institute of Visually Handicapped (NIVH), Dehradun.
- 5) Write a short note on Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNHH).

2.8.3. Long Answer Type Questions

- 1) Discuss and describe Salamanca Statement and Framework of Action, 1994 in detail.
- 2) Write a detail note on District Disability Rehabilitation Centres (DDRCs).
- 3) Discuss the role of non-voluntary organisation for disabled children.
- 4) Discuss in detail national institutes of different disabilities.
- 5) Explain the role of the various organisations for education of children with disabilities.

UNIT 3**Special Needs and Inclusion****3.1. SPECIAL NEEDS****3.1.1. Concept of Special Needs**

Human beings have some basic needs, i.e., need for food, drink, shelter, sleep, safety and security needs, self-esteem needs and self-actualised needs. These needs are vary person to person, because of individual differences. In the concept of special needs these needs also vary because no two children are the same. It means that every child is different from each other. They are differing from each other on different grounds such as physique, health, intelligence, etc. Children with special needs have unique and important care requirements. It is important for families and providers to communicate about the unique needs of a child to ensure the best care possible. The existence and history of these children is as old as human being itself. In ancient time these children were neglected from society. At that time there was no special arrangement for these children.

Historically, people with disabilities were often placed in hospitals, asylums, or other institutions that provided little, if any, education. The concept of children with special need has been originated from British isle. The government commission chaired by **Baroness Marry Warnock** reported to the government on the findings of its enquiry into special education in Britain.

3.1.2. Meaning and Definitions of Special Needs

No singular definition of the term "special needs" exists, although the term is widely used to address people with disabilities. However, the term "special needs" is currently under debate in the disability, healthcare, and emergency management communities. "Special needs" can be narrowly defined as a broad and overarching concept.

In the United States, a special need is a term used in clinical diagnostic and functional development to describe individuals who require assistance for disabilities that may be medical, mental, or psychological. In the United Kingdom, special needs often refer to special needs within an educational context. This is also referred to as **Special Educational Needs (SEN)**. In the United States, 18.5 percent of all children under the age of 18 (over 13.5 million children) had special health care needs as of 2005. More narrowly, it is a legal term applying in foster care in the United States, derived from the language in the Adoption and Safe Families Act, 1997.

It is a diagnosis used to classify children as needing more services than those children without special needs who are in the foster care system. It is a diagnosis

based on behaviour, childhood and family history, and is usually made by a health care professional. Special need is defined as an individual with a mental, emotional, or physical disability. An individual with special needs may need help in one or more of the following areas:

- 1) Communication,
- 2) Movement,
- 3) Self-care, and
- 4) Decision-making.

According to UNESCO (1994), the term special needs defined as "the special or unique, out of the ordinary concerns created by a person's medical, physical, mental, or developmental condition or disability. Additionally services are usually needed to help a person in one or more of the areas, among others thinking, communication, movement, getting alongwith others and taking care of self."

The term "special needs" is a short form of special education needs and is a way to refer to students with disabilities. The term special needs in the education setting comes into play whenever a child's education programme is officially altered from what would normally be provided to students which is sometimes referred to as an individual programme plan. Individuals with disabilities or special needs may require special care. To ensure their safety, several laws have been enacted into government.

3.1.3. Types of Special Needs

Types of special needs vary in severity. People with autism, down syndrome, dyslexia, blindness, ADHD, or cystic fibrosis, may be considered to have special needs. However, special needs also include cleft lips or palates, port-wine stains or missing limbs.

Following may be considered some special needs children:

1) **Physically Challenged/Handicapped:** Physically handicapped children are those who have so much abnormality in body organ due to which they face specific problem in receiving education and adjustment with others.

2) **Developmental Disability:** Developmental disability is a diverse group of chronic conditions that are due to mental or physical impairments. Developmental disabilities cause individuals living with them many difficulties in certain areas of life, especially in "language, mobility, learning, self-help, and independent living".

i) **Autism:** Autism Spectrum Disorder (ASD) is a developmental disability that can cause significant social, communication and behavioural challenges and social interaction, generally evident before age 3 that adversely affects a student's educational performance. People with ASD often have problems with social, emotional, and communication skills. Many people with ASD also have different ways of learning, paying attention, or reacting to things. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

ii) **Cerebral Palsy:** The word 'cerebral' means the brain, and 'Palsy' means a weakness in the way a person moves or positions her or his body. Cerebral

palsy is a disorder caused by damage to the brain that occurs before, during, or shortly following birth. It affects body movement and muscle coordination. Individuals with cerebral palsy may also experience seizures, abnormal speech, hearing and visual impairments, and mental retardation. Children with cerebral palsy may not be able to walk, talk, eat, or play in the same ways as most other children. Cerebral palsy can include milder versions or more severe symptoms which lead to total dependency. Although cerebral palsy is a life-long condition, training and therapy can help to improve this condition. Infants with cerebral palsy are usually slow to reach developmental milestones such as rolling over, sitting, crawling and walking. They find difficulty in controlling and coordinating muscles.

- iii) **Attention Deficit Hyperactivity Disorder (ADHD):** This is a disorder of attention in which children get easily distracted and cannot sustain attention on one point for long. They are often hyperactive, i.e., they – always moving and trying to manipulate things. The two main features of ADHD are inattention and hyperactivity impulsivity. Children who are inattentive find it difficult to sustain mental efforts during work or play. They have a hard time to keeping their minds on any one thing for long durations or to follow any instructions. Common complaints are that the child does not able to listen, cannot concentrate, does not follow instructions, disorganised, easily distracted, and forgetful, does not finish assignments, and is quick to lose interest.
- iv) **Diabetes:** It is a disease in which the body does not produce or use insulin properly. Insulin is a hormone that our bodies use to convert sugar, starches and other food into the energy, which we need. While the cause of diabetes is unknown, it appears that both genetics and environmental factors such as obesity and lack of exercise play roles. There are 23.6 million children and adults in the United States with diabetes. This is about 7.8% of the population.
- v) **Epilepsy:** This is one of the special health problems, which is generally faced by some children. Epilepsy is a group of neurological diseases which is characterised by epileptic seizures. Epileptic seizures are episodes that can vary from brief and nearly undetectable to long periods of vigorous shaking. In epilepsy, seizures tend to recur, and have no immediate underlying cause. Isolated seizures that are provoked by a specific cause such as poisoning are not deemed to represent epilepsy. People with epilepsy in some areas of the world experience stigma due to the condition. Most cases of epilepsy are unknown, although some people develop epilepsy as the result of brain injury, stroke, brain tumours, infections of the brain and birth defects. Known genetic mutations are directly linked to a small proportion of cases. Epileptic seizures are the result of excessive and abnormal nerve cells activities in the cortex of the brain.
- vi) **Asthma:** It is a lung disease caused by swelling that leads to wheezing, shortness of breath, chest tightness, and coughing. Many people with asthma also have a family history of allergies, such as hay fever or pet allergies. It is a common ailment and complaint.

vii) **Anaemia:** It is also a health problem, in which a child suffers from severe loss of blood. Anaemia is defined as a low Hb concentration in blood, or less often, as a low haematocrit, the percentage of blood volume that consists of red-blood cells.

3) **Behavioural/Social and Emotional Disability:** Some children with learning disabilities have a real strength in the area of social skills. However, several characteristics of learning disabilities, such as those noted concerning language, can create difficulties in social and emotional life. Although not all children with learning disabilities have social-emotional problems, they do run a greater risk than their non-disabled peers of having these types of problems. The main reason for these social-emotional problems is that students with learning disabilities often have deficits in social cognition.

4) **Sensory Impaired/Disability:** The concept of sensorial disability embraces persons with sensory, visually, and hearing impaired; and they are so important for humans, because those are the receptors that perceive information about the world around us. Sensory impairment is when one of our body senses, i.e., sight, hearing, smell, touch, taste and spatial awareness, is no longer in a normal condition.

i) **Hearing Impairment:** A hearing impairment is also called a hearing loss that prevents a person from totally receiving sounds through the ear. Hearing loss exists on a continuum from mild to profound, and most special educator distinguishes between children who are deaf and hard of hearing. A child who is deaf is not able to use hearing to understand speech. He uses vision as the primary modality for learning and communication. But children who are hard of hearing are able to use their hearing to understand speech, with the help of hearing aid.

ii) **Visual Impairment:** Vision is the most actively used sense by man. Visual anomalies may influence the life of the individual in physical, mental, social, vocational and educational aspects. There are more people suffering from low vision than those who are totally blind. Students with visual impairments are constantly challenged by classroom instructional strategies. Although they can easily hear lectures and discussions, it can be difficult for them to access class syllabi, textbooks, overhead projector transparencies, PowerPoint presentations, the chalkboard, maps, videos, written exams, demonstrations, library materials, and films. A large part of traditional learning is visual; fortunately, many students with visual disabilities have developed strategies to study and learn.

5) **Intellectual Disability (ID):** It is also known as general learning disability, and Mental Retardation (MR). It is a generalised neuro-developmental disorder which is characterised by significantly impaired intellectual and adaptive functioning. It is defined by an IQ score under 70 in addition to deficits in two or more adaptive behaviours that affect general living. Intellectual disability may be in following types:

i) **Mental Retardation:** These children are those whose intelligence is less than average. Generally, no mother or father is easily prepared to accept that their child is mentally retarded. Earlier these kinds of children were

recognised as backward children. But according to some psychologists, at present, mentally retarded children are those children who possess very less intelligence than average from the birth itself and who are not able to adjust with the society.

ii) **Slow Learners:** They show inability to progress normally in school work, when compared with children of the same chronological age, they show marked educational deficiency.

6) **Learning Disability:** It is a general term that describes specific kinds of learning problems that cause a person to have difficulty acquiring certain skills. The skills most often affected are reading, writing, listening, speaking, and reasoning. The term does not include learning problems that are primarily the result of visual, hearing, motor disabilities, mental retardation, emotional disturbance, or environmental, cultural, or economic disadvantage. The term "learning disability" is used to describe the seemingly unexplained and unexpected difficulty which a person while acquiring basic academic skills. These skills are essential for success at school and work, and for coping with life in general. A learning disability is not a single disorder. It is a term that refers to a group of disorders. Learning disabilities are characterised by a gap between the level of achievement that is expected and what is actually being achieved.

7) **Children belonging to Different Groups:** The right to education is universal and does not allow for any form of exclusion or discrimination. However, both developing and developed countries face challenges while guaranteeing equal opportunities to all in accessing education and within education systems. Marginalised groups are often left behind by national educational policies, denying many people their right to education. People who are marginalised are very likely to be subject to multiple layers of discrimination, i.e., they belong to more than one marginalised group. Other groups may be identified as gay, lesbian, transgender, bisexual, kothi and hijra. They experience various forms of discrimination within the society and the health system. Due to the dominance of heteronormous sexual relations as the only form of normal acceptable relations within the society, individuals who are identified as having same sex, sexual preferences are ridiculed and ostracised by their own family and are left with very limited support structures and networks of community that provide them conditions of care and support. Their needs and concerns are excluded from the various health policies and programmes.

3.1.4. Learning Styles

Learning styles has been regarded as one of the most important factors that control the way of people learning. There is also a propensity to match students' learning styles to the "teaching styles" of concerned teachers. In the realm of instructional design, the emphasis has gradually shifted towards achieving a match between the way learning resource materials are presented and the learning styles of the learners themselves. There is a strong tendency for teachers and course designers to pay closer attention to students' learning styles – by diagnosing them, encouraging students to reflect on them and by designing teaching and learning interventions around them.

According to Keefe, "Learning styles are comprised of characteristic cognitive, affective and physiological factors that serve as relatively a stable indicator of how a learner perceives, interacts with and responds to the learning environment."

- 0 According to Cheri Fuller, "Learning style entails how a person's best takes in, understands and remembers information."
- 0 According to Kemp et al, Learning styles are "traits that refer to how individuals approach learning tasks and process information".

Learning styles refer to a range of competing and contested theories that aim to account for differences in individuals' learning. These theories propose that all people can be classified according to their style of learning, although the various theories present differing views on how the styles should be defined and categorised. A common concept is that individuals differ in how they learn.

3.1.4.1. Types of Learning Styles

Learning styles may be in following forms:

- 1) **Auditory Learners:** They prefer to receive ideas and information by hearing them. These students may struggle with reading and writing, but excel at memorising spoken words such as song lyrics. They often benefit from discussion-based classes and the opportunity to give oral presentations.
- 2) **Visual Learners:** They prefer to receive information by seeing it. Typically these students pay much attention to detail. They are less likely to speak in class than their auditory peers, and generally use few words when they do. Outlines, graphs, maps and pictures are useful in helping these students learn.
- 3) **Kinaesthetic-Tactile Learners:** They tend to learn best via movement and touch. These students are often labelled "hyperactive" because they tend to move around a great deal.
- 4) **Read and Write Learning:** They are predominantly text-based learners. They learn best by reading information and writing out their own notes.

Additional Learning Styles

In addition to the styles listed above, McCarthy (1980) also developed four additional learning styles, namely, innovative, analytical, common sense learners and dynamic learners.

- 1) **Innovative Learners:** They have a strong sense of social justice and want their work to have meaning and reflect their values. They enjoy social interaction and like to cooperate with others.
- 2) **Analytical Learners:** These learners like learning activities that are based on facts and always take time to reflect on their learning activities. Children with this learning style also want the work so that they do contribute to helping the world in some shape or form.

3) **Common Sense Learners:** These learners are very practical and are eager to set things in motion. They enjoy activities or learning that has a practical application. These learners are also kinaesthetic.

4) **Dynamic Learners:** Children whose predominant learning style is dynamic will use their gut instincts to guide their actions. They are also adept at bringing together information from a variety of sources. These learners are naturally inquisitive and curious and look for the hidden meaning behind concepts.

3.1.4.2. Importance of Learning Styles

Learning styles are important in following ways:

- 1) Provide a head start and maximises learning potential,
- 2) Enables to succeed in school, college, university,
- 3) Gives customised techniques to score better on tests and exams,
- 4) Reduces the stress and frustration of learning experiences,
- 5) Expands existing learning and studying strategies,
- 6) Increases self-confidence,
- 7) Improves self-image, and
- 8) Provide an insight into your strengths, weaknesses, and habits.

3.2. SCHOOLS AWARENESS & READINESS FOR ADDRESSING LEARNING DIFFICULTIES

3.2.1. Introduction

The concept of readiness includes much more than children's readiness to learn in pre (kindergarten) standards. Readiness includes ready children, ready families, ready communities, ready early care and education, and ready schools. Readiness at every level is necessary so that all children can get success in their life. It is the responsibility of schools to meet the needs of children as they enter in a school and to provide whatever services are needed to help each child to reach his or her fullest potential.

Readiness has been variously theorised as a particular chronological age, as a stage or level of development in children, as a set of skills and competencies, as a process, and as a set of relationships. Each of these conceptions has different implications for the roles and responsibilities of children, families, and schools.

Among advocates and policy researchers, readiness is discussed more and more as an interactive process or set of relationships in which the child, his or her family, the community environment, and the school interact in ways that support, or fail to support, the child's physical, cognitive, and social and emotional development.



3.2.2. Meaning and Definitions of School Readiness

School readiness is an interactive process in which a child or the family or the school interact in a way to support for the overall development of a child so that all aspects (physical, mental, psychological, and emotional, etc.,) of the child come into focus. Readiness can be discussed in terms of a child's skills and other characteristics. It is not easy to assess or find whether a child is ready for the school. His willingness to go to school is his own and cannot be exposed simply because by so many factors he does not express that. Readiness has two separate concepts:

- ✓ 1) Readiness for school, and
- ✓ 2) Readiness to learn.

These two concepts clarify the whole picture. Sometimes it is found that a child is ready to learn but not altogether willing to go to school. On the other hand, it is also seen sometimes that a child does not feel any difficulty in school going and willing to go there but does not have willingness to learn. At this time he should have some stimulating so that his inclination of going to school can involve a good learning willingness and habit. Readiness to learn is a level of development at which a child is able to learn. Readiness for school is rather different in terms of earlier one. It indicates that the individual will be able to be successful in a typical school context.

“School readiness” is the involvement of both concepts for making the one side concepts. It is defined as a quality that renders the child able to adapt the school environment as well as the school curriculum.

School readiness is defined as the “ability to cope, learn and without undue stress.”

~~The National Association for the Education of Young Children (NAEYC) stated that school readiness is defined as “the state of early development that enables individual child to engage in and benefit from early learning experience. As a result of family nurturing and interactions with others, a young child at this stage has reached certain level of emotional development, cognition and general knowledge, language development, physical well-being, and motor development.”~~

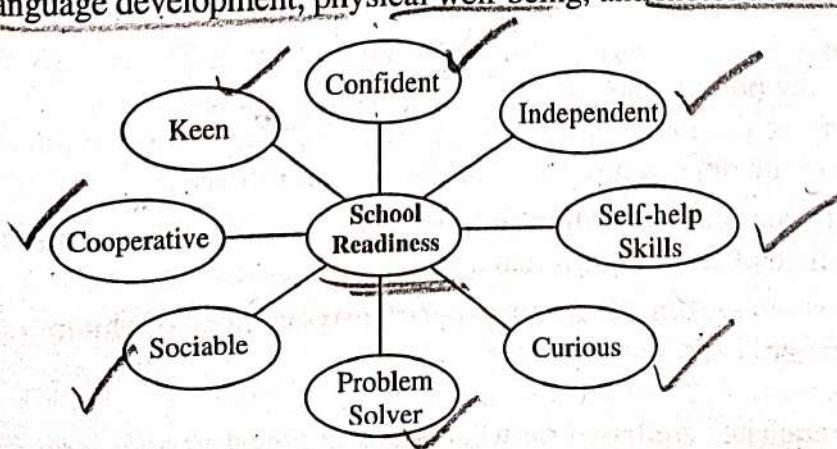


Figure 3.1

3.2.3. Characteristics of Ready School

A ready school may have following characteristics:

- 1) They smooth the transition between home and school,
- 2) They strive for continuity between early care and educational programmes and elementary schools,
- 3) They help children to learn and make sense of their complex and exciting world,
- 4) They are committed to the success of every child,
- 5) They are committed to the success of every teacher and every adult who interacts with children during the school day,
- 6) They introduce or expand approaches that have been shown to raise achievement,
- 7) They are learning organisations that can alter their practices and programmes if they do not benefit children,
- 8) They serve children in communities,
- 9) They take responsibility for results, and
- 10) They have strong leadership quality.

3.2.4. Elements of School Readiness

School readiness consists of following three elements:

- 1) **Children's Readiness for School:** What children should know and be able to do in order to enter school ready and eager to learn, thereby enabling a successful transition to a primary school environment.
- 2) **Schools' Readiness for Children:** School environment and practices that foster and support a smooth transition for children into primary school. These practices also promote the learning of all children.
- 3) **Ready Families:** Family and community supports the services that contribute to children's readiness for school success and parental and caregiver attitude towards involvement in their children's early learning and development and transition to school.

3.2.5. Prerequisites for School Readiness

The National Association for the Education of Young Children (NAEYC, 1995) describes three prerequisites for universal school readiness:

- 1) Addressing the inequalities in early life experience so that all children have access to the opportunities that promote school success.
- 2) Recognising and supporting individual differences among children including linguistic and cultural differences, and
- 3) Establishing reasonable and appropriate expectations of children's capabilities upon school entry.

These prerequisites are based on what is development of appropriate the children and therefore do not include mastery of numbers, shapes, and letters.

3.2.6. Domains of School Readiness

A child's readiness for school should be measured and addressed across five distinct but connected domains. These domains are:

1) **Physical Well-Being and Motor Development:** This dimension covers such factors as health status, growth, and disabilities, physical abilities, such as gross and fine motor skills, and conditions before, at, and after birth, such as exposure to toxic substances.

The areas covered in this domain are:

- i) Children's physical development, e.g., growth patterns of height and weight,
- ii) Health status, e.g., the ability to see and hear,
- iii) Physical abilities, e.g., ability to move to get needs met, assisted or unassisted,
- iv) Proper nutrition and rest have a strong impact on readiness to learn, providing children with the energy and mobility to explore their environment and increase their ability to concentrate, and
- v) Early identification of needs and provision of intervention services are critical for children with disabilities.

2) **Social and Emotional Development:** Social development refers to children's ability to interact with others. A positive adaptation to school requires such social skills as the ability to take turns and to cooperate. Emotional development includes such factors as children's perceptions of themselves and their abilities to both understand the feelings of other people and to interpret and express their own feelings. It includes:

- i) Children's knowledge of their own feelings and those of others,
- ii) Ability to develop positive relationships,
- iii) An interest in and demonstration of interpersonal skills needed to maintain positive relationships with adults and peers,
- iv) The capability of engaging and cooperating within a group,
- v) The ability to demonstrate the skills needed to get alongwith peers, e.g., managing conflicts in a positive way.

This domain serves as a foundation for later school success and meaningful life experiences as an adult and consists of developing and maintaining friendships, appreciating differences, solving conflicts, and functioning effectively in groups.

3) **Approaches to Learning:** This dimension refers to the inclination to use skills, knowledge, and capacities. Key components include enthusiasm, curiosity, and persistence on tasks, as well as temperament and cultural patterns and values, and enjoyment of learning, confidence, creativity, attention to task, reflection, interests and attitudes. These are manifested in all domains and curriculum areas, including music, dramatic play, and art.

4) **Language Development:** This dimension includes verbal language and emergent literacy. Verbal language includes listening, speaking, and vocabulary. Emergent literacy includes print awareness, e.g., assigning

sounds to letter combinations, story sense, e.g., understanding that stories have a beginning, middle, and end, and the writing process, e.g., representing ideas through drawing, letter-like shapes or letters.

5) **Cognition and General Knowledge:** This aspect includes knowledge about properties of particular objects and knowledge derived from looking across objects, events, or people for similarities, differences, and associations. It also includes knowledge about societal conventions, such as the assignment of particular letters to sounds, and knowledge about shapes, spatial relations, and number concepts.

Although these five domains are separate and distinct, there is constant overlap of skill acquisition in early childhood development. Skills in one domain are reinforced as skills are gained in another domain, e.g., increase of communication skills builds confidence and positive self-image. Children development occurs at varying rates, and as such we should not expect all children to reach a common "standard" of readiness. Children come from different cultures, with unique life experiences, and a range of ability levels. Therefore, it is anticipated that children may demonstrate competencies in individual ways and should be expected to show different patterns of development.

3.2.7. Factors Affecting School Readiness

There are many factors that may affect whether or not a child is ready for school. Family characteristics, nutrition, and health practices have been identified as primary factors in school readiness, the level of readiness with which our children begin school are also influenced by several external societal factors. These include our nation's historical and contemporary approaches to early learning and teacher education field practices, reforms to improve education departments and professionalise early childhood teachers, as well as public policy concerning certification of teachers and accountability. School readiness can be affected by following factors:

1) **Family Background:** Family plays a vital role in a child's learning process. It supports a child at many levels in his learning. Family is the real source of inspiration and motivation for him. It provides a healthy and learning-supportive environment to the child. It encourages a child at each step whether he experiences success or failure. Sometimes, a child is not willing to go to school, here comes the role of family which encourages him to go and learn. It prevents a child from any deviation by giving him moral support. In some cases, it is also noticed that a child does not go to school feeling humiliation in presence of children without disabilities or capable children.

2) **Role of Health of Learner:** Health has an important role in child's learning. It is an essential factor in school readiness. School readiness is based upon the disability level of a child. A child having slight disability should be sent to school. And more, if the child is having disability even though is healthy, he can go to school in all circumstances. Most of the health problems come into existence at childhood. So the prevention measure should be started right from the initial stage. It is necessary to ensure the successful school readiness.

3) **Social and Economical Condition:** In any of the country social and economical conditions play significant role in students' education and schooling. He or she should be made secure from social as well as financial side. This factor becomes more important in case of physically disabled learners. Sometimes, social and financial conditions cause great difficulties. So many students suffer from the inadequate facilities and care. Sometimes, it gives cultural barriers which bring the bad effects for readiness to learn. Secondly, the children from poor families cannot afford the cost charged by the current educational system which causes the drop-out of the children from school.

4) **Environment of the Classroom:** In inclusive setting, the environment of class also plays a great role. It directly affects the school readiness. In such case, it is the sole responsibility of the common teachers to produce supportive environment for the children with special needs. In this regard, the special as well as the general education teacher should pay heed whether the other students without disabilities are supporting their special classmates.

5) **Readiness of Children for School:** The individual child's readiness for school can include whether the child has had the opportunities to develop the necessary skills. These can include:

- i) Opportunities to play and share with other children their own age. If children have not had these experiences then going to school can be a daunting and confusing experience.
- ii) A level of self-confidence and independence. If children are totally reliant on others then they may find themselves struggling to cope with day-to-day expectations.

6) **Readiness of School for Children:** The school needs to be ready for the individual child. Before a child starts at school and in the early stages of a new term, schools need to consider:

- i) Effective information sharing with previous settings and parents/carers.
- ii) An open, welcoming environment where every child is valued and respected.
- iii) The role of the key person in supporting a smooth transition.
- iv) Adapting activities and opportunities to meet the individual needs of the child.

7) **Parent Support to Children for School:** Parents and carers play a vital role in preparing a child to be ready for school. They need to consider:

- i) Providing the individual child with a range of experiences that enable them to develop the necessary skills for school readiness,
- ii) Having conversations about going to school in a positive and supportive manner, and
- iii) Information sharing with the school about any particular needs the child may have including health, dietary or special needs.

Factors that have been associated most consistently with children's cognitive and/or social-emotional preparedness for school are:

- i) Socio-economic status which often interacts with race or ethnicity,
- ii) Child's health,
- iii) Family background characteristics, particularly the mother's education, single-parent status, and mental health,
- iv) Home and community environment, including risk factors and literacy-related factors, and
- v) Participation in some type of preschool programme.

3.2.8. Issues of School Readiness

There are a number of issues which contribute to a child's lack of school readiness and may need to be addressed. They include:

- 1) Issues related to preschool programmes include insufficient number, cost, and wait lists,
- 2) Income-related factors including poverty, overcrowding in the home, lack of parental education, or inability to provide school transition resources,
- 3) Parenting factors including coping strategies, mental health issues, or lack of understanding of the importance of school transition programmes,
- 4) Child factors including lack of social skills, physical activity or the impact of media overuse, e.g., television, internet,
- 5) Insufficient access to safe spaces where children can play or insufficient play structures or equipment,
- 6) Lack of awareness or resources to support children's play,
- 7) Lack of consensus of the school readiness definition across disciplines, e.g., health, education, social services, and
- 8) Lack of support services, such as literacy programmes for newcomers.

3.3. INCLUSIVE SCHOOLS

3.3.1. Concept of Inclusive School

The concept of inclusive education was first globally introduced in the Salamanca Statement, held in World Conference on Special Needs Education (1994), as a guideline framework for formulating policies, development of inclusive schools and provision for special services.

According to the statement, "The fundamental principle of the inclusive schools is that all children should learn together, wherever possible, regardless of any difficulties or differences, they may have. Inclusive schools must recognise and respond to the diverse needs of their students, accommodating both, different styles and rates of learning and ensuring quality education to all through appropriate curricula, organisational arrangements, teaching strategies, resource use and partnership with their communities."

Inclusive education is the situation in which all children study in the same school, regardless of their physical, mental, social and emotional abilities or circumstances or characteristics.

Inclusion requires the transformation of learning contexts, which includes the curriculum on offer, the assessment, recording and reporting of pupils' achievements, the decisions that are taken on the grouping of pupils within schools or classrooms, pedagogy and classroom practice, sport and leisure and recreational opportunities.

3.3.2. Meaning and Definitions of Inclusive School

Inclusive schools recognise and respond to the diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organisational arrangements, teaching strategies, resource use and partnerships with their communities. Inclusive beliefs, policies and practices specifically address the needs of students with disabilities and additional learning needs; they are equally beneficial for the full range of students.

Schools that are inclusive adopt the belief that wherever possible so that all children should learn together regardless of differences; that all children can learn and achieve their potential; and that the continuum of students' needs should be matched by a continuum of programmes, support and services. All students regardless of their ability or disability benefit from schools adopting inclusive practices.

According to Ballard, "Inclusive schools deliver a curriculum to students through organisational arrangements that are different from those used in schools to exclude some students from their regular classrooms."

According to Stainback and Stainback, "An inclusive school is a place where everyone belongs, is accepted, supports and is supported by his or her peers and other members of the school community in the course of having his or her educational needs met."

According to Shaw, "Our school is well known as an inclusive school. Our school reflects our community. We have male and female students from all cultures, races and religions with all abilities and disabilities. There are many languages spoken in our school."

The Equality Authority (2005) defines the inclusive school as "one which respects, values and accommodates diversity across all nine grounds in the equality legislation such as gender, marital status, family status, sexual orientation, religion, age, disability, race and membership of the traveller community. It seeks positive experiences, a sense of belonging and outcomes for all pupils across the nine grounds".

3.3.3. Characteristics of Inclusive School

Characteristics of an inclusive school are as follows:

- 1) **Supportive Environment:** An inclusive school is one that has high expectations for its staff members and students, provides caring support for students and staff, and provides opportunities for their participation in the classroom and broader school setting.
- 2) **Positive Relationships:** Inclusive schools build positive relationships. Teachers encourage the development of relationships through their decisions about where to seat children in the class. More formal actions include exposing children to role models and setting up buddy relationships. Many strategies can be used to promote the social inclusion of all children.
- 3) **Feelings of Competence:** Children can feel competent in areas related to their social, athletic, moral, and creative abilities and qualities, as well as their ability to learn. By understanding their areas of strength, children come to value themselves and develop a strong sense of self-worth or self-esteem.
- 4) **Opportunities to Participate:** All children require opportunities to participate in activities that allow them to understand societal expectations. They can then acquire the physical and social competencies needed to function in their school, home, and larger community.
- 5) **Treat Equally:** Inclusive schools consider all pupils and staff equally. It restructures their cultures, policies and practices so that they respond to pupil diversity. It reduces barriers to learning and participation for all pupils.
- 6) **Improve the Learning Outcomes:** An inclusive school is driven by a moral imperative to improve the learning outcomes of all students regardless of their capacities and backgrounds.
- 7) **Committed to and Focus on Whole School:** An inclusive school is deeply committed to the belief that all children can learn. It adopts a whole school focus that is reflected in the school's vision, beliefs, policies and practices.
- 8) **Recognises Special Learning Needs:** It recognises that all students have special learning needs of one sort or another. It focuses on students' learning needs rather than on their learning disabilities. (Rewards)
- 9) **Provides Learning Programmes and Tasks:** It provides learning programmes and tasks that are targeted to students' learning styles, interests and needs. It has high expectations of students, sets unambiguous but challenging achievement targets, rewards efforts and celebrates success.

3.3.4. Role of Inclusive School in Modern Times

Inclusive schools play an important role for special needs students:

- 1) **Focus on Students' Welfare:** Inclusive schools are committed towards students' welfare. They are engaged in preparing pupil for transitions, developing social skills, supporting the pastoral needs of pupil, supporting behavioural needs, e.g., strategies to reduce stress, building peer relationships, e.g., lunchtime support, etc.

- (2) **Preparation of Proper Classroom:** Inclusive schools highly interested to proper classroom management. They support the teacher's understanding of the learning and social needs of pupil, collaborate with parents and specialists, communicate/collaborate with other teachers and students' peers, and prepare the physical environment e.g. seating, noise.
- (3) **Engaging Relevant Curriculum:** Teachers in inclusive classrooms must design curriculum and instruction and engineer classroom activities that are personally and culturally appropriate, engaging for a range of learning styles, and suitable for learners with various talents and interests. This is critical not only for students with unique learning or social needs, but for every student in the classroom as they grow and learn not just from the daily curriculum, but from the ways in which schools respond to difference.
- (4) **Create Social Environment:** Inclusive schools facilitating emergency evacuation, providing appropriate access, suitable storage, e.g., pupil locker, adapting school grounds, and providing access to trips, etc., so that they can create a social environment.
- (5) **Curriculum Adaptation:** Inclusive schools differentiating curricular content, facilitating appropriate assessments, addressing pupil choices, and adapting resources, e.g., technology, etc., and facilitating additional supports for curriculum adaptation.
- (6) **School Management:** Inclusive schools highly tend to arrange a proper timetable, facilitate medications, therapies, etc., and conducting risk management, maintaining records, planning for emergencies.
- (7) **Professional Development:** Inclusive schools promoting whole-staff responsibility, encouraging staff to accept diversity, supporting learning needs of staff, building capacity in relation to staff expertise.
- (8) **Community Development:** For community development inclusive school promoting whole-school awareness, building an inclusive ethos through shared extra-curricular activities, collaborating with relevant community groups, collaborating with other schools.
- (9) **Parental Involvement:** They building trust, celebrating pupil success, supporting communication and collaboration, facilitating shared planning, supporting the family through informal meetings, classes, etc.
- (10) **Secure Children's Basic Human Right:** Inclusive schools are designed to secure children's basic human right to an individually, culturally, and developmentally appropriate education and to eliminate social exclusion.
- (11) **Stresses Interdependence and Independence:** Inclusive schooling is an educational movement that stresses interdependence and independence, views all students as capable, and values a sense of community. Further, it supports civil rights and equity in the classroom.
- (12) **Responsive Instruction:** Teachers in inclusive classrooms are concerned about reaching and motivating all learners. In the best cases, they are versed in adapting materials, lesson structures; instructional arrangements, curricular

goals and outcomes, and teaching techniques and can meet both the academic and social needs of students. A teacher concerned with responsive instruction might create any of the following opportunities for students with diverse learning needs:

- i) Engineer a cross-age mentoring relationship for a student who needs extra assistance.
- ii) Give select students opportunities to use manipulative on some maths worksheets.
- iii) Provide personal checklists to those who need help with organisation.
- iv) Provide opportunities to pace in the back of the classroom during lectures and class discussions for a student needing movement.
- v) Create large-print textbooks for students with low vision; and/or
- vi) Allow students to design their own assessments for a particular unit.

13) **Encourages Practitioners to Reinvent:** Inclusive schooling propels a critique of contemporary school culture and thus, encourages practitioners to reinvent what can be and should be to realise more humane, just and democratic learning communities. Inequities in treatment and educational opportunity are brought to the forefront, thereby fostering attention to human rights, respect for difference and value of diversity.

14) **Inclusive Classroom:** In inclusive classrooms, units of study must be relevant, themes of investigation must be interesting and content must be appropriately challenging. Classroom materials should also be meaningful to a wide variety of students. The classroom library must include books written by and about people with individual and group differences. Further, classroom lessons should include information about the diversity students represent.

3.3.5. Infrastructural Facilities for an Inclusive School

Infrastructure may be defined as the basic facilities and installations that help a government or community run, including roads, schools, phone lines, sewage treatment plants and power generation.

In general, the infrastructure facilities provide integrated areas in clean room environment, check out areas, storage areas, air locks, transport bays, customer offices, meeting rooms, telecom and IT equipment and auxiliary office equipment.

The infrastructure provides an excellent world class educational experience in a growing and nurturing environment. Schools should be equipped with large open areas, centrally air-conditioned classrooms and also non-air conditioned rooms for natural environment and a variety of premium amenities.

Essential Infrastructural Facilities for an Inclusive School

The essential infrastructural facilities are mentioned below, which are required for an inclusive school:

1) **School Building with Boundary Wall and Railing:** The school's building is the place where different types of learners go for study and trained under one roof. In this regard, the school building should be made of proper boundary

wall and railing, and must provide for certain amenities for the students such as common room, sanitary conveniences, provision for mid-day meals, refreshments. The building should be south-facing, so that sunlight can enter into the room in the winter and cannot enter directly in the summer. The building must be planned with hygienic laws. The level of the school should be high so that water-logging does not take place in the monsoon season. There should be a good drainage system. Repair and maintenance of buildings should be given most priority.

- i) Elementary schools should have a minimum of six classrooms, a science lab, art room, gymnasium, praying room, nurse/first aid station, principal office, staff room, storage room, reception area, guard room and toilets.
- ii) Preparatory and secondary schools shall have three labs (biology, physics and chemistry).

2) **Furniture:** School furniture is the main interface between the user and the building. For students, it is what they sit on, work at, eat at, put their belongings in, discover new etches on, find things in, and see their work displayed on. For teachers, it is how they organise the space they teach in, where they store and access all the daily equipment and how they display visual learning materials. For visitors to a school, the furniture they encounter can form their impressions of the place the tactile and visual characteristics of reception furniture can welcome and orientate, providing instant legibility in an unfamiliar space, or alternatively make the visitor both physically uncomfortable and unwelcome. Thus, in an inclusive school there should be availability of all needed furniture such as chair, table, desk, etc.

3) **Facility of Drinking Water, Sanitation and Hygiene:** There should be adequate facility of drinking water, sanitation and hygiene in inclusive schools. Water, sanitation and hygiene in schools refers to a combination of technical and human development components that are necessary to produce a healthy school environment and to develop or support appropriate health and hygiene behaviours.

4) **Proper Separate Toilets for Boys and Girls:** In school premises there should be separate facility of toilets for boys and girls so that they do not feel any problem. Toilet should have been constructed in the school premises. Access to the toilet must be open and without any hindrances.

5) **Playground with Play Material and Sports Equipment:** For physical activities, play grounds and gymnasium should be available in schools.

6) **Trained Teacher, Separate Classrooms for Each Teacher, Head-Teacher's Office:** The teachers who are appointed should be well trained and have knowledge of current events too. The number of administrative staff in the school should be proportional to the number of students. A separate room should be allocated for each of the principal, vice-principal, secretary, storekeeper, and the social worker.

7) **Well-Equipped Library and Laboratory:** The library and laboratories for teaching and research should be digitalised with different kinds of books,

scientific books, magazine and newspapers. In a modern school a library should be more of a learning commons able to support a variety of student activities as they learn to access and evaluate information.

- 8) **Computer Labs:** Students are connected to the internet everywhere except in school. Regardless of their income bracket, most kids carry around a world of information in their pockets on their mobile devices, and yet we force them to power down and disconnect, and we confine them in obsolete computer labs. A modern school needs to have connectivity everywhere and treat computers more like pencils than microscopes.
- 9) **Required Equipments and Facilities:** Each school facility should be equipped with one telephone system (atleast), fax and e-mail. Each school facility should be equipped with fire-fighting equipments (fire extinguishers). Schools should have nurse room. The room should be equipped with first aid equipment.
- 10) **Facility of Ramps/Lifts:** In a school a normal child can use stairs to go next floor but a disabled child is unable to upstairs. So, in schools there should be proper arrangement of ramps/lifts.
- 11) **Facility of Doctor:** For any injury or illness to provide first aid there should be availability of doctors.
- 12) **Facility of Transportation:** School and kindergarten should provide air-conditioned buses with comfortable seats.
- 13) **Separate Boys and Girls Hostels:** In schools there should be available separate hostel facilities for girls and boys. Trained personnel should be appointed in the hostels to provide a sense of security in the hostels. In additions, trained and experienced wardens should be for taking care.
- 14) **Text Books:** In the schools all children who take admission do not belongs equal status. Some of them may be rich and some others poor. So, school must arrange books for needed children.

3.3.5.1. Policies and Programmes for Infrastructural Facilities

A large number of provisions have been made for improving schools conditions and increasing number of inclusive schools and enhancing its effectiveness. Provisions made in different programmes for these schools are mentioned as follows:

- 1) **National Education Policy:** It categorically emphasises on the need to improve infrastructure within schools across India in order to increase enrolment. It also specifies that it is mandatory for schools to have separate toilet facilities for both boys and girls; a target to be attained by 2015.
- 2) **Sarva Shiksha Abhiyan (SSA):** It is Government of India's flagship programme for achievement of Universalisation of Elementary Education (UEE) in a time bound manner. Water, sanitation and hygiene infrastructure facilities are provided in all new schools.

- 3) **Mid-Day Meal Programme:** It is a nutrition programme which reaches almost 10 crore children daily, in 12 lac schools. Group hand washing with soap before mid-day meal is promoted across the country in order to enhance the nutritional outcomes.
- 4) **Rashtriya Madhyamik Shiksha Abhiyan (RMSA):** It is launched by Ministry of Human Resource Development, March, 2009, to enhance access to secondary education and to improve its quality. Besides, it also lays emphasis on secondary schools to conform to prescribed norms of providing access to quality physical infrastructure like good classrooms, quality toilet infrastructure and drinking water provisions, and norms of removing gender, socio-economic and disability barriers.
- 5) **Kasturba Gandhi Balika Vidyalaya (KGBV):** It aims at ensuring access and quality education to girls from disadvantaged groups belonging to SC and ST population, by setting up residential schools at upper primary level. Infrastructure support to these centres includes safe drinking water and toilet facilities as per the prevailing SOR rates.

3.3.6. Awareness and Positive Attitude Towards Disability

Attitudes are a complex collection of beliefs, feelings, values and dispositions which characterise the way we think or feel about certain people or situations. People's attitudes are a product of life experiences, including the relationships we build with the people around us. For example, a person's attitudes towards one disabled person might be shaped by their personal experience of knowing another disabled person. And these attitudes often affect the way people behave in particular situations or towards other people.

Attitudes can be either positive or negative, and even when they are positive, there can be a disjunction between the way people without disability interpret 'positive' and the way it is interpreted by people with disability. For example, a person with disability may conceptualise a positive attitude as being 'nice' or 'helpful', whereas a person without disability might find it patronising and prefer that they avoid the category of disability entirely.

Attitudes are formed on the basis of beliefs. Beliefs are derived from a myriad of sources. People's beliefs and attitudes can be prejudicial. Ignorance, a lack of awareness and a fear of difference (or, arguably, of being disabled) can lead to prejudice. It can also be the result of a number of influences that can create, maintain and reinforce prejudicial views.

There are two different types of inclusion, i.e., relational and distributional. **Relational inclusion** involves people's sense that they are valued as much as other members of society. **Distributional inclusion** involves parity of access to social and economic opportunities. Respect and non-discrimination are required for the first type of inclusion. Equality of wellbeing and participation (in group access to education, employment, etc.), identified through empirical measures of outcomes, are required for the second type.

To bridge any gaps in community attitudes towards people with and without disability and the outcomes they experience, it is necessary to try and change attitudes. It is true that attitude change, whether in individuals or in communities, is a slow process. Time and attention are required to challenge the beliefs that constitute an attitude, much less overturn them.

In this regard the creation of an inclusive culture involves creating a secure, accepting, collaborating and stimulating community in which everyone is valued. It is concerned with developing inclusive values, shared between all staff, students, governors and parents/carers that are conveyed to all new members. The principles, derived within inclusive school cultures, then guide decisions about policies and moment-to-moment practice. The production of inclusive policies is about securing inclusion at the heart of school development, permeating all policies, so that they increase the learning and participation of all students.

Awareness and positive attitude can bring inclusion in schools in the following way:

- 1) Valuing all students and staff equally,
- 2) Increasing the participation of students in, and reducing their exclusion from, the cultures, curricula and communities of local schools,
- 3) Restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in the locality,
- 4) Reducing barriers to learning and participation for all students, not only those with impairments or those who are categorised as having special educational needs,
- 5) Learning from attempts to overcome barriers to the access and participation of particular students to make changes for the benefit of students more widely,
- 6) Viewing the difference between students as resources to support learning, rather than as problems to be overcome,
- 7) Acknowledging the right of students to an education in their locality,
- 8) Improving schools for staff as well as for students,
- 9) Emphasising the role of schools in building community and developing values, as well as in increasing achievement,
- 10) Fostering mutually sustaining relationships between schools & communities, and
- 11) Recognising that inclusion in education is one aspect of inclusion in society.

3.3.6.1. Effective Policies to Change Attitudes

Effective policies can be adopted at different levels such as personal, organisational and structural levels of intervention. The levels are explained below:

- 1) **Personal Level:** Initiatives are directed towards improving community attitudes at the personal level, through awareness campaigns, training and information for individuals, monitoring media portrayals of people with disability and their portrayal and participation in the arts, and programmes involving social contact between people with and without disability.

- 2) **Organisational-Level:** Organisational-level initiatives directed at sectors relating to people's life domains, in particular education, employment and health,
- 3) **Structural-Level:** Structural-level policies that enact, implement and monitor legislation, in particular disability rights legislation and inclusive education. Policies to change attitudes to particular groups of people with disability, specifically autism, mental illness and intellectual disability.

3.3.7. Human Resources

Human resources is used to describe both the people who work for a company or organisation and the department responsible for managing resources related to employees. The term human resources was first coined in the 1960s when the value of labour relations began to garner attention and when notions such as motivation, organisational behaviour, and selection assessments began to take shape.

The human resources are the headmaster, teachers and other persons involved in the teaching- learning process.

The broad purpose of the human resource management function in any educational organisation is to attract, develop, retain, and motivate personnel in order to achieve the school's mission.

It defines the school's people objectives. However, as we move towards the twenty first century many schools have yet to realise the full dimensions of human resource management functions.

Human resources of the school are students, teaching staff and non-teaching staff. There is no betterment without teacher in the school. Proper planning and organisation of teaching learning activities can only be achieved through Cooperation, willingness, involvement, fellow feelings and devotion of teachers, students, librarians, assistants, peons, etc.

Qualified and trained human resources are one of the essential elements that determine the quality of education, a child receives. Successful inclusion of Children with Disabilities (CWDs) in education requires sufficient personnel (teachers, headmasters, specialists, administrative staff, caregivers) including special educators with adequate preparation and training.

There has been a significant increase in the number of children with disabilities in schools in recent years as a result of several programmes and interventions. This growth has created a parallel demand for professionally qualified special education teachers, administrators, experts and caregivers.

The RTE Act provides for full inclusion of CWDs in regular schools. This vision demands that every classroom teacher is able to adopt inclusive teaching-learning approaches and use ICTs to enhance learning which, in turn, calls for integration

of inclusive education in both pre-service and in-service teacher training. ICT skills are critical for education personnel who support and educate CWDs and have supportive attitudes. Despite the critical importance of human resources for effective inclusion of CWDs, human resource planning is seriously lacking. It is largely unknown what categories of educational personnel are currently working in schools that serve CWDs.

An inclusive school should be based on following criteria in regards with human resource:

- 1) Proper and appropriate teacher-student ratio in the school,
- 2) Well qualified and well equipped special teachers should be appointed,
- 3) There should be provision and arrangement of resource room for special needs children,
- 4) There should be guidance and counsellors for teachers, students and for parents also, and
- 5) The school staff must be committed towards special children.

3.3.8. Whole School Approach

A whole-school approach recognises that all aspects of the school community can impact upon students' health and wellbeing, and that learning and wellbeing are inextricably linked.

A Whole-School Approach (WSA) as a concept and model varies nationally and internationally. A number of international initiatives including those from the World Health Organisation (WHO), UNICEF, UNESCO, and the U.S. Centres for Disease Control and Prevention (CDC), the International Union for Health Promotion and Education (IUHPE) and others use different terms to describe holistic, comprehensive approaches in response to the health and well-being issues of students, school staff and the wider community.

A whole-school approach is inclusive of all school staff, students and education partners and touches all aspects of school life. It should promote positive mental health and academic achievement and includes social-emotional learning in school practices, policies and partnerships.

A whole-school approach also means that all everyone in the school feels safe and welcome, no matter their ability, disability, language, cultural background, sexual orientation, gender identity, gender expression or age. Alberta schools are using a number of strategies to support welcoming, caring, respectful and safe learning environments that respect diversity and nurture a sense of belonging and a positive sense of self.

Understanding aspects of a whole-school approach will help school leaders to decide how to best meet the needs and priorities of their school. Effective school-wide practices can then be used.

3.3.8.1. Characteristics of A Whole-School Approach

Following are the some essential characteristics of a whole-school approach:

- 1) A whole-school approach is built on evidence-based strategies and practices (the effectiveness is documented and credible),
- 2) A whole-school approach happens over a sustained period of time (e.g., full school year or longer),
- 3) A whole-school approach is embedded into teaching, routines and activities,
- 4) A whole-school approach uses reliable instructional practices,
- 5) A whole-school approach is supported by on going professional development,
- 6) A whole-school approach engages students in active learning and opportunities to practice social-emotional skills,
- 7) A whole-school approach is embedded into school policies and practices,
- 8) A whole-school approach promotes positive mental health,
- 9) A whole-school approach is supported by on going professional development,
- 10) A whole-school approach involves family and community partnerships,
- 11) A whole-school approach aligns with the specific needs and priorities of the school community, and
- 12) A whole-school approach collects information to ensure the strategy is making a positive difference in the learning environment.

3.4. EXERCISE

3.4.1. Very Short Answer Type Questions

- 1) Define special needs.
- 2) What do you mean by school readiness?
- 3) Give a definition of inclusive schools.
- 4) Define learning styles.
- 5) Write some characteristics of inclusive schools.

3.4.2. Short Answer Type Questions

- 1) Write a short note on concept of special needs.
- 2) Describe elements of school readiness.
- 3) What are the factors which affect school readiness?
- 4) Describe role of inclusive schools.
- 5) Write a short note on awareness and positive attitudes towards disability.

3.4.3. Long Answer Type Questions

- 1) Discuss and describe school awareness and readiness for addressing learning difficulties.
- 2) What do you mean by inclusive school? Explain the role of inclusive school in modern time.
- 3) Focus on human resource and whole school approach.
- 4) Which types of infrastructural facilities are needed for an inclusive set up? Describe.
- 5) Focus on positive attitude towards disability in detail.

UNIT 4

Practices and Support System for Inclusive Set-Up

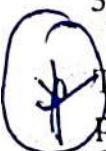
4.1. PEDAGOGICAL STRATEGIES TO RESPOND TO INDIVIDUAL NEEDS OF LEARNERS IN CLASSROOM

Achieving effective teaching and learning in mainstream settings of children with disability remains a concern for professionals, researchers and educators. The question behind this is that whether there should be a distinctive pedagogy for targeting learners with challenging behaviour and or special educational needs. This evidently reflects the changing political mood which aspire a more inclusive society. However, there is concern about the attainability of the principle that all children and young people are valued as individuals through a common pedagogy in mainstream fashion. Thus the importance of teaching-learning approaches comes to fore in determining effective inclusive practices especially for targeting pupils with challenging behaviour in mainstream classroom.

“Pedagogic strategies refer to a general abstract teaching method; they can influence instructional design models also.”

Pedagogic Strategies can be defined at 3 levels:

- 1) General instructional designs,
- 2) Designs applied to a teaching/learning unit, e.g., a lesson or a course module, and
- 3) Pedagogic methods that are part of a wider design.

 There are various types of pedagogical strategies which are used in classroom practices. Some of them described clearly below:

<ol style="list-style-type: none"> 1) Peer tutoring, 3) Social learning, 5) Reflective teaching, and 	<ol style="list-style-type: none"> 2) Cooperative learning strategy, 4) Buddy system, 6) Multi-sensory teaching.
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4.1.1. Peer Tutoring

Peer tutoring is an instructional strategy that consists of student partnerships, linking high achieving students with lower achieving students or those with comparable achievement, for structured reading and math study sessions. It is an organised learning experience in which one student serves as the teacher or tutor, and one is the learner or tutee. It gives students an opportunity to use their knowledge in a meaningful, social way.

According to Utley and Mortweet, Peer tutoring is defined as “a class of practices and strategies that employ peers as one-on-one teachers to provide individualised instruction, ~~practice, repetition,~~ and clarification of concepts, is supported by a substantial research base for promoting improved academic outcomes across content areas.”

Peer tutoring has led to improvements in students' reading outcomes. For example, fluency and comprehension, math scores on standardised assessments and curriculum based measurements, science gains on curriculum-based tests and standardised tests, spelling accuracy, and the acquisition of social studies content knowledge.

4.1.1.1. Objectives of Peer Tutoring

The main objectives of the peer tutoring programme are as follows:

- 1) To provide learning assistance to students in a particular academic subject or skill area by pairing such students with fellow students who have demonstrated competence in that particular academic subject or skill area.
- 2) To improve students' understanding and application of concepts and methods as they pertain to a particular subject or skill, thereby enhancing student success.
- 3) To provide tutors with an opportunity to refine their communication, instructional and interpersonal skills through the process of peer interactive instruction.
- 4) To provide tutors with a constructive mechanism to consolidate their own knowledge in a particular subject or skill area while earning a fee for the provision of tutorial services.

4.1.1.2. Peer Tutoring Models

At present, following types of peer tutoring models are prevailing:

- 1) **Class-Wise Peer Tutoring (CWPT):** Class-wise peer tutoring involves dividing the entire class into groups of two to five students with differing ability levels. Students then act as tutors, tutees, or both tutors and tutees. Typically, CWPT involves highly structured procedures, direct rehearsal, competitive teams, and posting of scores. The entire class participates in structured peer tutoring activities two or more times per week for approximately 30 minutes.
- 2) **Cross-Age Peer Tutoring:** In this tutoring programme older students are paired with younger students to teach or review a skill. The positions of tutor and tutee do not change. The older student serves as the tutor and the younger student is the tutee. The older student and younger student can have similar or differing skill levels, with the relationship being one of a cooperative or expert interaction. Tutors serve to model appropriate behaviour, ask questions, and encourage better study habits. This arrangement is also beneficial for students with disabilities as they may serve as tutors for younger students.
- 3) **Peer Assisted Learning Strategies (PALS):** Peer Assisted Learning Strategies is a form of the CWPT model. It involves a teacher pairing students who need additional instruction or help with a peer who can assist. Groups are flexible and change often across a variety of subject areas or skills. Cue cards, small pieces of cardstock upon which are printed a list of

tutoring steps, may be provided to help students remember PALS steps. All students have the opportunity to function as a tutor or tutee at differing times. Students are typically paired with other students who are at the same skill level, without a large discrepancy between abilities.

- 4) **Reciprocal Peer Tutoring (RPT):** Two or more students alternate between acting as the tutor and tutee during each session, with equitable time in each role. Often, higher performing students are paired with lower performing students. RPT utilises a structured format that encourages teaching material, monitoring answers, and evaluating and encouraging peers. Both group and individual rewards may be earned to motivate and maximise learning. Students in RPT may prepare the instructional materials and are responsible for monitoring and evaluating their peers once they have selected a goal and reward as outlined by their teacher.
- 5) **Same-Age Peer Tutoring:** Peers who are within one or two years of age are paired to review key concepts. Students may have similar ability levels or a more advanced student can be paired with a less advanced student. Students who have similar abilities should have an equal understanding of the content material and concepts. When pairing students with differing levels, the roles of tutor and tutee may be alternated, allowing the lower performing student to quiz the higher performing student. Answers should be provided to the student who is lower achieving when acting as a tutor in order to assist with any deficits in content knowledge. Same-age peer tutoring, like class-wide peer tutoring, can be completed within the students' classroom or tutoring can be completed across differing classes. Procedures are more flexible than traditional class-wide peer tutoring configurations.

4.1.1.3. Selection of Tutors and Tutees

One common method for determining pairs or groups involves ranking students from the highest performing to the lowest performing student for the particular activity or subject. Pairs can be formed by cutting the list in half and then matching the top performing student with the first lowest performing student, the second highest performing student with the second lowest performing student, and so forth. If heterogeneous groups are desired, the number of students in each team should be determined. The list of students can then be numbered from one to the desired number of persons in a group and then repeated until the entire class is included.

When selecting tutors, teachers should be cognizant of which students can be most helpful in the process. Teachers should be mindful of differing student personalities, needs, and preferences. Pairs or groups should be established accordingly.

4.1.1.4. Selection of Peer Tutoring Models

Peer tutoring models are flexible and can be altered to meet individual student or class learning needs. The academic task should dictate the appropriate model based on content and learning goals. While there is some upfront planning and instruction, once students develop an understanding of procedures, groups or dyads can be altered dependent upon the setting, activity, or desired learning outcomes.

4.1.1.5. Training of Peer Tutors

For training of peer tutors following steps can be taken:

- 1) To establish rules for confidentiality of student progress;
- 2) To define and develop procedures for social skills students may need throughout peer tutoring, i.e., sharing, taking turns, using respectful language, and accepting criticism or feedback;
- 3) To define and develop procedures for moving into peer tutoring groups quickly and quietly;
- 4) To explain and model peer tutoring and allow students to practice prior to the first peer tutoring session. Consider using a prepared script for practising interactions;
- 5) To train students how to provide feedback for correct and incorrect peer responses, including praise; and
- 6) To teach students how to carefully monitor their own and their partner's progress.

4.1.1.6. Planning and Implementation of Peer Tutoring Programme

There are following steps involved in planning and implementation of peer tutoring:

- 1) To clarify the specific objectives of the tutoring programme, including both academic and social objectives when appropriate.
- 2) List objectives in a form that can be easily measured.
- 3) Choose tutoring partners carefully.
- 4) Establish rules and procedures for the tutoring programme. These rules should cover how students are to interact with each other, and specify the type of interactions that are not acceptable.
- 5) Implement the tutoring programme, monitor it carefully, and be consistent in enforcing the rules and procedures. Modify rule and procedures as necessary.
- 6) Evaluate the programme frequently, and do not wait for the end of the programme to determine whether it was effective. Collect information throughout the programme, and predict whether it will be successful. If progress is not being made, modify the programme.

4.1.1.7. Advantages of Peer Tutoring

In inclusive education it is important for diverse need students:

- 1) It is a widely-researched practice across ages, grade levels, and subject areas.
- 2) Direct interaction between students promotes active learning.
- 3) Peer teachers reinforce their own learning by instructing others.
- 4) Students feel more comfortable and open when interacting with a peer.
- 5) Peers and students share a similar discourse, allowing for greater understanding.
- 6) The intervention allows students to receive one-to-one assistance.
- 7) Students receive more time for individualised learning.
- 8) Students have increased opportunities to respond in smaller groups.

- 9) It promotes academic and social development for both the tutor and tutee.
- 10) Student engagement and time on task increases.
- 11) Peer tutoring increases self-confidence and self-efficacy.
- 12) The strategy is supported by a strong research base.
- 13) Peer teaching is a financially efficient alternative to hiring more staff members.
- 14) Teachers receive more time to focus on the next lesson.

4.1.2. Cooperative Learning (group)

Cooperative learning is a successful teaching strategy in which small teams, each with students of different ability levels, use a variety of learning activities to improve their understanding of a subject. Each member of a team is responsible, not only for learning what is taught, but also for helping his or her teammates to learn, thus, creating an atmosphere of achievement. Cooperative learning is effective in both cognitive and affective (social-emotional) areas of pupils' learning and development.

A working definition of cooperative learning is the use of small groups through which students work together to maximise their own and each other's learning.

According to the University of Tennessee at Chattanooga (1998), "Cooperative learning is a generic term for various small group interactive instructional procedures."

In cooperative learning, the teacher systematically organises groups of three to six students to work and learn together. The students are often assigned roles in their group for completing the task. Students depend on each other to learn academic material while developing stronger social skills. Since the students work in a team to accomplish the academic goal, it produces a cooperative environment that can have a positive outcome for children of all abilities. Cooperative reward structures are used as incentive to encourage the pupils to learn the material.

4.1.2.1. Characteristics of Cooperative Learning

The following six characteristics of cooperative learning groups are a summary of the characteristics outlined in Johnson, Johnson and Smith's book **Active Learning: Cooperation in the College Classroom**, 1991.

The characteristics are:

- 1) **Positive Interdependence:** Team members are obliged to rely on one another to achieve their goal.
- 2) **Individual Accountability:** All students in a group are held accountable for doing their share of the work.
- 3) **Face-to-Face Promotive Interaction:** Group assignments should be constructed so that the work cannot be simply parcelled out, and done individually. Assignments must include work that has to be done interactively.
- 4) **Appropriate Collaborative Skills:** Students are encouraged and helped to develop and practice trust building, leadership, decision-making, communication and conflict management.

- 5) **Group Processing:** Team members set-up group goals, periodically assess what they are doing well as a team, and identify changes they will make to function more effectively in the future.
- 6) **Heterogeneous Groups:** Individuals benefit the most from working with people different from themselves.

4.1.2.2. Key Elements of Cooperative Learning

According to James A. Duplass (2006), the following are the most commonly found elements of cooperative learning:

- 1) **Teacher Supervision:** The teacher should always monitor group activity to ensure that students are not veering too far off task. The teacher should also be available to answer student questions and guide discussion if necessary.
- 2) **Heterogeneous Groups:** The teacher creates groups of diverse ability levels and backgrounds.
- 3) **Positive Interdependence:** By setting group goals and working towards a reward or final learning outcome.
- 4) **Face-to-Face Interaction:** Students are encouraged to use verbal and non-verbal communication to solve problems and explain learning material.
- 5) **Individual Accountability:** Students are accountable for their tasks and for assisting the whole group meets for learning goals. This accountability is enforced through student roles.
- 6) **Social Skills:** The teacher needs to establish rules so that all students are respectful, speak in a manner appropriate to the classroom setting, and utilise their time wisely during group interaction.
- 7) **Group Processing:** Students engage in reflection on how the group functioned during activity.
- 8) **Evaluation:** All activities should include both individual and group assessment.

4.1.2.3. Types of Cooperative Learning

Johnson *et al.* (1998) described three types of cooperative learning groups which are:

- 1) **Formal Cooperative Learning:** According to Johnson, Johnson, & Holubec (2008), "Formal cooperative learning consists of students working together, for one class period to several weeks, to achieve shared learning goals and complete jointly specific tasks and assignments." In formal cooperative learning groups the teachers' role includes:
 - i) **Making Pre-instructional Decisions:** In this teachers formulate both academic and social skills objectives, decided on the size of groups, choose a method for assigning students to groups, decide which roles to assign group members, arrange the room, and arrange the materials students need to complete the assignment. In these pre-instructional decisions, the social skills objectives specify the interpersonal and small group skills students are to learn. By assigning students roles, role

interdependence is established, the way in which materials are distributed can create resource interdependence. The arrangement of the room can create environmental interdependence and provide the teacher with easy access to observe each group, which increases individual accountability and provides data for group processing.

- ii) **Explaining the Instructional Task and Cooperative Structure:** In this teachers explain the academic assignment to students, explain the criteria for success, structure positive interdependence, structure individual accountability, explain the behaviours (i.e., social skills) students are expected to use, and emphasise intergroup cooperation.
- iii) **Monitoring Students' Learning and Intervening:** It provides assistance in completing the task successfully or using the targeted interpersonal and group skills effectively. While conducting the lesson, teachers monitor each learning group and intervene when needed to improve task work and teamwork. Monitoring the learning groups creates individual accountability; whenever a teacher observes a group, members tend to feel accountable to be constructive members.
- iv) **Assessing Students' Learning and Helping Students Process:** It tells how well their groups functioned. Teachers bring closure to the lesson, assess and evaluate the quality and quantity of student achievement, ensure students carefully to discuss how effectively they worked together (i.e., process the effectiveness of their learning groups), have students make a plan for improvement, and have students celebrate the hard work of group members. The assessment of student achievement highlights individual and group accountability (i.e., how well each student performed) and indicates whether the group achieved its goals (i.e., focusing on positive goal interdependence).

2) **Informal Cooperative Learning:** According to Johnson, Johnson, and Holubec (2008), "Informal cooperative learning consists of having students work together to achieve a joint learning goal in temporary, *adhoc* groups that last from a few minutes to one class period." Two important aspects of using informal cooperative learning groups are to make the task and the instructions explicit and precise and require the groups to produce a specific product. The procedure is as follows:

- i) **Introductory Focused Discussion:** Teachers assign students to pairs or triads and explain:
 - a) The task of answering the questions in a four to five minute time period, and
 - b) The positive goal interdependence of reaching consensus.

The discussion task is aimed at promoting advance organising of what the students know about the topic to be presented and establishing expectations about what the lecture will cover. Individual accountability is ensured by the small size of the group. A basic interaction pattern of eliciting oral rehearsal, higher-level reasoning, and consensus building is required.

- ii) **Intermittent Focused Discussions:** Teachers divide the lecture into 10 to 15 minute segments. This is about the length of time a motivated adult can concentrate on information being presented. After each segment, students are asked, to turn to the person next to them and work cooperatively in answering a question (specific enough so that students can answer it in about three minutes) that requires students to cognitively process the material just presented.
- iii) **Close Focused Discussion:** Teachers give students an ending discussion task lasting four to five minutes. The task requires students to summarise what they have learned from the lecture and integrate it into existing conceptual frameworks. The task may also point students toward what the homework will cover or what will be presented in the next class session. This provides closure to the lecture.

3) **Cooperative Base Groups:** Cooperative base groups are long-term, heterogeneous cooperative learning groups with stable membership. Members' primary responsibilities are to ensure all members are making good academic progress (i.e., positive goal interdependence) hold each other accountable for striving to learn (i.e., individual accountability), and provide each other with support, encouragement, and assistance in completing assignments. In order to ensure the base groups function effectively, periodically teachers should teach needed social skills and have the groups' process how effectively they are functioning.

4.1.2.4. Cooperative Learning Strategies in Classroom

Researchers all over the world have been studying practical applications of cooperative learning principles and as a result many cooperative learning strategies are in practice today. **Robert Slavin** has done extensive research on cooperative learning and developed many team teaching methods. Teachers can choose to implement several different types of collaborative learning strategies, depending on the need of student and the focus on specific assignments. Some collaborative learning strategies may include:

- 1) **Think-Pair-Share Strategy:** Think-pair-share is a collaborative teaching strategy first proposed by **Frank Lyman** of the University of Maryland in 1981. The Think-Pair-Share Strategy involves each student in the group taking one minute to formulate a response to the teacher's question, then sharing individual findings with a partner. After collaborating in pairs, students can then share input with slightly larger groups or with the entire class.
- 2) **Jigsaw-I / Simple Jigsaw Strategy:** In the originally designed Jigsaw method by **Elliot Aronson et al.** which involves four-person teams splitting, a teacher-assigned task into equal parts. Each student in the group acts as an expert on one section of the assignment and meets with corresponding experts in other groups for discussion and task mastering. Students then return to their initial teams to share their knowledge of the task with other members.
- 3) **Three-Step Interview Strategy:** The Three-Step Interview strategy, through which students initially break into pairs and take turns interviewing one another about an assignment. Each pair of students then combines with another pair in order to enhance the discussion.

4) **Numbered Heads Together Strategy:** Number head together developed first by **Spencer Kagan** to involve more students in learning material which consist in a lesson and to know their knowledge about the material given. The Numbered Heads Together strategy, where each team member is assigned a number, then instructed to collaborate on a question. The teacher then calls a number randomly, and the student in each group who has that number acts as spokesperson in answering the question. Each student must be prepared for the possibility of having his or her number chosen.

Slavin breaks learning into two basic categories – group study and task specialisation. In the category of group study there are many examples of teaming. Several of these were developed by **Slavin** in collaboration with others. Teachers can choose to implement these cooperation learning strategies depending on the need of student and the focus on specific assignments.

1) **Students Team Learning Methods (Group Study):** In this category of group study four principle student team learning methods have been included, these are:

i) **Student Teams Achievement Divisions (STAD):** STAD is a cooperative learning strategy in which small groups of learners with different levels of ability work together to accomplish a shared learning goal. It was devised by **Robert Slavin** and his associates at John Hopkins University.

ii) **Team Assisted Individualisation (TAI):** It is also known as Team Accelerated Instruction (**Slavin, Leavey and Madden**) shares with STAD, the use of four member mixed ability learning teams and certificates for high-performing team. However, STAD use a single pace of instruction for the class, where TAI combines cooperating learning with individualised instruction. This mode of cooperative learning is specifically designed to teach mathematics to students.

2) **Task Specialisation Strategies:** Other cooperative learning strategies that comes under the category of task specialisation are discussed below:

i) **Teams-Games-Tournaments (TGT):** This strategy, originally developed by **David Devries and Keith Edwards**, was the first of the John Hopkins Cooperative strategies. This method involves the same use of heterogeneous teams, instructional format and worksheets as in STAD for the learning of information but replaces the tests with weekly tournaments, in which students play academic games with members of other teams to contribute points to their team scores.

ii) **Cooperative Integrated Reading and Composition (CIRC):** This strategy is developed by **Slavin et al.** this method is designed to accommodate a wide range of student performance levels in one classroom, using both heterogeneous and homogenous within class grouping. In most CIRC activities, student follows a sequence of teacher instruction, team practice, team pre-assessments, and test. Student's contributions to their teams are based on their test scores and independently written compositions, which ensure individual accountability.

4.1.2.5. Benefits for Special Needs Students

There are several benefits of cooperative learning structures for students with disabilities. Students with disabilities are more engaged in classroom activities where cooperative learning structures are in place compared to more traditional classroom interventions. Specifically, in inclusive classes that use cooperative learning, students articulate their thoughts more freely, receive confirming and constructive feedback, engage in questioning techniques, receive additional practice on skills, and have increased opportunities to respond. Further, when students are thinking aloud while discussing, teachers are better able to assess student and group needs and intervene if needed. That is, by actively monitoring students' learning, teachers are able to redirect groups toward learning tasks and provide re-teaching during mini-conferences as appropriate. When structures are in place for this level of dialogue to occur, it accelerates the comprehension process.

According to Stevens and Slavin, "students with disabilities are more likely to be at instructional level and have positive learning outcomes when explanations and models are provided by their peers. These benefits and quality learning are realised only when both the general and special education teachers are committed to the learning structures that benefit all students."

The process of collaborative learning is advantageous for special education students in quite a few ways. When working in small groups to grasp concepts and complete assignments, children with special needs can:

- 1) Increase self-esteem through contributing valuable input to the group.
- 2) Strengthen communication skills through conversing and socially interacting with classmates.
- 3) Strengthen critical thinking skills through problem solving, group discussion, and taking responsibility for portions of a task.
- 4) Decrease feelings of anxiety that stem from having to work independently in the classroom.
- 5) Model the problem solving and behavioural techniques exhibited by typical children in the group.
- 6) Contribute to an understanding of diversity within the group. When collaborating with one another on schoolwork, all group members can learn to respect and appreciate the individual strengths, differences, and insights of others.
- 7) Gain a positive attitude in regard to learning new classroom material. The sense of being included in problem solving and working with teammates to complete an assignment can bring great satisfaction to children who have struggled academically or socially in the past.

The benefits of collaborative learning and special needs students having the opportunity to engage in small group tasks can produce positive results in regard to classroom organisation and management.

4.1.2.6. Advantages of Cooperative Learning

Cooperative learning has various advantages:

- 1) **Positive Student Achievement:** The effects on student achievement are positive and long-lasting, regardless of grade level or subject matter.
- 2) **Student Retention:** Students are more apt to stay in school and not dropout because their contributions are solicited, respected, and celebrated.
- 3) **Improved Relations:** One of the most positive benefits is that students who cooperate with each other also tend to understand and like each other more. This is particularly true for members of different ethnic groups. Relationships between students with learning disabilities and other students in the class improve dramatically as well.
- 4) **Improved Critical Thinking Skills:** More opportunities for critical thinking skills are provided, and students show a significant improvement in those thinking skills.
- 5) **Oral Communication Improvement:** Students improve in their oral communication skills with members of their peer group.
- 6) **Promoted Social Skills:** Students' social skills are enhanced.
- 7) **Heightened Self-Esteem:** When students' work is valued by team members, their individual self-esteem and respect escalate dramatically.

Opportunities by Cooperative Learning

Collaborative learning activities create opportunities for students to:

- 1) Engage in subject specific discussions with peers.
- 2) Learn how to work cooperatively and support each other.
- 3) Develop effective teamwork and communication (including interpersonal and cross-cultural awareness) skills.
- 4) Assimilate multiple views to deepen knowledge and promote critical thinking.
- 5) Foster individual accountability to the team.
- 6) Develop independent learning strategies.
- 7) Structure out-of-class learning.
- 8) Mitigate learner isolation.
- 9) Students have a higher self-efficacy about their chances of being successful, express more intrinsic motivation to learn school subject matter, participate more actively in classroom activities, and exhibit more self-regulated learning.
- 10) This allows students to engage in pro-social behaviours, perspectives of others, divide task equally, resolve interpersonal conflicts, and provide encouragement and support to each other.
- 11) Students will have an increased number of friendships with racial groups, ethnic groups, and persons with disabilities.

4.1.2.7. Disadvantages of Cooperative Learning

Disadvantages of cooperative learning is that students may sometimes be more interested in achieving a group reward with the least possible effort and so will focus more on getting the right answer than on ensuring that all group members understand the subject matter being studied.

- 1) **Loss of Control:** Cooperative learning is a structured approach that requires instructor support and guidance. In order for cooperative learning to be utilised in the classroom, instructors must receive training to be proficient in implementing the techniques. Maximum learning will only emerge if proper training is received by the instructor and then transferred to the student.
- 2) **Group Work:** Depending on the age level, students may resist using cooperative learning in their classrooms. Lecture does not require much interaction and participation from the students; therefore, they can get as much or as little from the class as they like. Being required to work in a group may ruffle a few feathers with the students because now they are being asked to participate and contribute to their learning. In addition, they are also asked to learn new concepts and taught how to work in a group. They may not be accustomed to working in a group, and therefore, may be unsure of the dynamics involved in group work.
- 3) **Time Requirements:** With cooperative learning, the textbook is used only as an instructional supplement, so it is necessary for instructors to create additional materials for the students. Usually these materials are made from scratch because many instructors' manuals offer limited suggestions for group activities. Creating these new materials can be very time consuming. So, not only are instructors spending a large amount of time implementing this new way of learning, but they also have to create the materials to go along with it.
- 4) **Other Drawbacks:** Since students are working together on a group assignment, it is difficult to assess students with a paper and pencil test. Instructors will have to find another way to assess student's work and progress. Since students are used to concrete assessments, it may be difficult for students to adjust to authentic assessments.

4.1.3. Social Learning

Social learning is an accessible strategy and approach to meet the learning needs, and define the learner appropriateness of such approach required for the learners who show challenging behaviour in mainstream classroom. Bandura developed a perspective that approaches learning as not just a product of classical and operant conditioning but as being influenced by observational learning. According to Bandura observational learning takes place when the learner learns from observing the actions of a model and the consequences of those actions leading to inhibition or disinhibition of his own action.

This implies for classroom practice is that the learner's challenge has to be located functionally, appreciated and addressed within a framework that contextually interface effectively, appropriate interactions between context, object and subject in a learning process.

4.1.3.1. Social Learning Theory

Bandura's social learning perspective can be an essential component of any multi-modular intervention in targeting the learning needs of the individuals with challenging behaviour.

Albert Bandura is a leading psychologist who had contributed immensely towards the development of many fields of psychology, and did some outstanding work with his social learning theory. His social learning theory is underpinned by his findings in researching the determinants and mechanisms of observational learning through analysing the fundamental aspects of human learning and the propensity of the learner to model their own behaviour by observing behaviour of others.

According to Ormond (1999), Social learning as a theory concerns with learning that occurs within a social context. The foundational understanding of the theory is based on the consideration that human beings learn from one another through observational learning, imitation and modelling. Ormond has given some assumptions regarding to social learning theory:

- 1) Learning can occur through people observing the behaviour of others and the outcome of such behaviours,
- 2) Learning can occur without a change in behaviour, and
- 3) Cognition is a basic key in learning,

Bandura's social learning perspective also suggests the assumption that modelling is reinforced by the environment, e.g., where the model behaviour leads to consequences that reinforce it. It is evident that the behaviours that people learn from others are sometimes resulting in satisfying or reinforcing experiences.

However, in contemporary times, emphasis on the social learning perspective have tended to dwell on reinforcement and punishment, angling more towards cognitive interventions on learning and behavioural change. Contemporary approaches to social learning perspective suggest that reinforcement and punishment, even though are not the main cause of learning, do have an indirect effects on learning. Both reinforcement and punishment impact on the level and extent of which the behaviour learnt is exhibited by the learner. And that the learner's anticipation of a form of reinforcement cognitively impacts on the processes of learning.

Social Learning and Cognitive Processes

Bandura's social learning perspective implies a number of cognitive factors; whereby it proposes a distinction to be made between learning by observation and learning through imitation of what has been learned: Learning by observation involves cognitive processing during the course of observation and paying attention, (task is cognitive), is critical to observational learning. Likewise, cognitively Bandura's thesis outlines the processes of learning. Bandura considers factors of expectations, reciprocal causation and modelling in the connections that is being made between subject, object and context in the learning process.

Behaviours and Modelling

Instrumentally, the social learning perspective shows how we can understand behaviour as a process of learning through modelling, atleast in part. The social learning perspective sees behaviour as being influenced by modelling. In the classroom, e.g., pupils can learn through mathematical demonstrations. Also, research had shown that children who are exposed to aggressive models, for instance parents who are aggressive or violent, become more aggressive themselves. Then again, moral thinking and behaviours that are modelled from a sense of right or wrong are heavily influenced and developed through modelling.

Social Learning Theory and Classroom Interventions

Increasingly, researchers had formed the opinion that successful classroom performance may depend, in part, on effective learning approaches, and that a learning difficulty is not just a fixed characteristic of the learner, but partly determined by the learning context. The social learning intervention aims at integrating subject, object and context to achieve increase in the learners; both developments in the cognitive and behavioural competencies. Its two main tools of interventions are applying modelling and changing perceived self-efficacy of the learner.

4.1.3.2. Steps in Social Learning Process

In this process of learning, generally the following steps are followed:

- 1) **Attending to and Perceiving the Behaviour:** Under this step, the observation of model's behaviour is included. The learner is allowed to observe the behaviour of some models. In this step, the learner's attention is attracted either towards his entire behaviour or some particular aspect of his behaviour. The learner gradually begins to focus on that behaviour.
- 2) **Remembering the Behaviour:** At this step, whatever the learner has observed or understood, marks it as mental images in his memory.
- 3) **Converting the Memory into Action:** In this, the learner, on developing the similar situation imitates that behaviour which was marked in his memory as mental images.
- 4) **Reinforcement of the Imitated Behaviour:** In this step, imitated behaviour is to be positively reinforced so that the learner may exhibit the behaviour of the model through his own behaviour in future.

For example, in B. Ed training programme, every subject teacher prepares plan of his subject and presents it as a model before his students. The pupil-teacher observes every activity and behaviour of his teacher. After observation, he keeps in his memory every activity of his teacher, his way of asking questions, method of presenting teaching aids, keeping the students active, and the method of explaining the subject matter. When the pupil-teachers teach the lesson themselves in the class, they try to repeat them in future also. In this way, by modelling the learning method is providing useful in habit formation in practice. In this way a desirable direction can be given to every behaviour and activity of a person or a student.

4.1.3.3. Merits of Social Learning Theory

Its merits are given below:

- 1) A person learns most of the behaviours in his life through the method directed by this theory.
- 2) In social learning process, observation, processes of imitation and reinforcement are included.
- 3) This theory approves or accepts the presence of internal cognitive variables.
- 4) This theory emphasises on the learning by imitating the behaviour of a person.
- 5) According to this theory, the learner learns only those behaviours which catch his attention and by which he is influenced.

4.1.3.4. Demerits of Social Learning Theory

It has some demerits too:

- 1) The main demerits or defect of this theory is the difficulty in presenting an ideal model,
- 2) All the behaviours of a person cannot be learnt by imitation, and
- 3) It is very difficult to ensure whether the ideal model is ideal or not.

4.1.3.5. Educational Implications of Social Learning Theory

In classroom settings, the social learning approach can impact on learning in many ways. Some implications of the social learning perspective for the learner are given below:

- 1) Learners often learn through observing other people.
- 2) Clear distinction between behaviours and their consequences can effectively result to increase in desired behaviour from the learner and decreases in the undesirable behaviour.
- 3) In the classroom, involving the learners in discussion on the rewards for and consequences of desired and the undesirable behaviours can be used to facilitate the learning process.
- 4) Through modelling can be an effective alternative to shaping by providing a quicker and more easily responsive means for teaching new behaviour.
- 5) However, to achieve effective learning through modelling, the four essential conditions must exist, namely, attention, retention, motor reproduction, and motivation.

4.1.4. Buddy System

The buddy system is an effective method by which a deployed staff member shares the responsibility for his or her partner's safety and well-being. This type of active support is important in any deployment. Buddies are responsible for looking after each other in two main areas:

- 1) Personal safety, and
- 2) Resilience,

According to Merriam-Webster Dictionary, buddy system as "An arrangement in which two individuals are paired as for mutual safety in a hazardous situation."

Buddy systems help to promote friendship and support between older and younger peers through regular collaboration between their classes, fostering a sense of whole-school community. They also create friendships that enable both older and younger 'buddies' to bond more closely with their school, increasing the likelihood of more positive school behaviour for all students.

A buddy programme can strengthen the school community and help to challenge stereotypes, misconceptions or fears that students hold about younger or older age groups. A buddy system can also help students to feel valued and supported, and teach important social skills and create a caring ethos in the school. They can create connectedness that enables both older and younger buddies to bond more closely with their school, thereby increasing the likelihood of more positive social behaviour. It has been suggested that when students feel connected to their school, they also feel valued and safe and less likely to either bully or be bullied. Buddy systems help to reduce negative behaviours such as bullying.

4.1.4.1. Types of Buddy Systems

There are different types of buddy systems:

- 1) **Peer-to-Peer Buddy System for Student with Autism:** This approach considers a small group of students in a class being made "buddies" for a student with Autism. They are made aware of particular challenges about autism student and asked to take special care to include them, to be on the lookout for any bullying or exclusion and to be supportive to the student if they get stressed out or upset at break time or in class. A key thing to consider for this approach is that the student with Autism, and his or her parents, would have to be comfortable with the buddies understanding that they are a little different or, if they were comfortable with it, that they had Autism/Aspergers and what that meant.
- 2) **Peer-to-Peer Buddy System for all Students:** This is another option and something some schools do anyway and can perhaps pay special attention to a student with Autism' needs in the process. Everyone needs a buddy sometimes maybe a student is having a bad day, is upset about something or just is not very good at starting conversations or making friends alone. Under this system, a class would explore difference as a whole and recognise that everyone in a class is different and so have different needs, strengths, abilities and oddities. They would then either be paired up or each student would draw a name and become "buddy" to that person, perhaps without them even being made aware of it. Before the draw or pairing it could be discussed with the teacher, to ensure a student with Autism gets an especially strong buddy.

The advantage of this system is that it does not single out the student with Autism, especially if they are not comfortable with that, and instead includes everyone. Additionally, it gives the person with Autism a role in being a buddy also, which can be used to teach social skills, expectations and etiquette.

- 3) **Older Student Buddy:** This is a system in place in many schools but perhaps not always fully utilised for students with Autism. Under this system, generally the most senior year in the school act as buddies for the younger

students. If this system does take place in your school, enquire if there is a student who may have experience of Autism already, is particularly caring or maybe would like to study to become a carer or psychologist after school. This system is especially helpful in preventing bullying and exclusion as the buddy can see the student they are assigned when a teachers are maybe not around. Additionally, if a student with Autism is only beginning Secondary School a buddy can play an important role in showing them around, helping them to make friends and to find help if they get stressed or when the need arises.

4.1.4.2. Importance of Buddy Systems

It is important for:

- 1) **Connect with Peers:** Buddy systems that promote connectedness and empathy between peers are systems that use same-age buddies. In this case buddies can be used both in an academic context and during play.
- 2) **Help Each Other:** Buddies in the classroom may work together, help each other with academic tasks, share equipment and participate together in cooperative group work with other children. Buddies on the playground could participate in games, share equipment and even begin interacting in extra-curricular activities together (like sport and inviting each other to birthday parties).
- 3) **Protection:** Buddy systems help to protect children with disabilities from bullying; usually we ask older children, siblings, other relatives or family friends to keep an eye on the child. The buddy may meet the child at the school gate, check in with them on the playground, and walk them to the bus lines in the afternoon.
- 4) **Interact:** It helps to interact with children who they may have not interacted with before.
- 5) **Develops Awareness:** Develop an awareness and respect for diversity, thus developing socially and emotionally.
- 6) **Understanding of Task:** Develop a deeper understanding of the task or activity as they help clarify ideas and rules for their buddy.
- 7) **Acquiring Positive Skills:** Learn positive skills from their buddy, learn to see things from a different perspective, or learn the value of some things they take for granted.

Children who have disabilities can benefit from well-planned, well-implemented buddy systems through:

- 1) Seeing social and academic skills modelled;
- 2) Hearing things explained in child-friendly language;
- 3) Getting more one-on-one support than adults can provide in a busy school environment; and
- 4) Becoming more independent, connected and confident.

4.1.5. Reflective Teaching

Reflective teaching is a process where teachers think over their teaching practices, analysing how something was taught and how the practice might be improved or changed for better learning outcomes.

According to the dictionary meaning the word 'Reflecting' stands for the Act of reflection (turning back), contemplating or paying serious consideration, etc. Consequently, teaching at reflecting level must have its association with the process of reflecting or turning back the existing idea or knowledge for more careful consideration or critical examination to derive fresh conclusion.

According to Morris L. Bigge, "It is a careful and critical examination of an idea or supposed article of knowledge in the light of the testable evidence which supports it and further conclusions towards which it points."

A careful examination of this definition may reveal the following facts about the nature of the reflecting level of teaching:

- 1) It provides opportunities to the learners for the close, careful and critical examination of the existing facts, ideas, insights and generalisations;
- 2) The learners try to test them in the light of the relevant evidences; and
- 3) They are free to set independent hypothesis, test them and draw their own conclusion for learning new facts or acquiring new insight.

4.1.5.1. Advantage of Reflective Teaching

In inclusive classroom set-up we have the presence of diversified learners having diversified interests, potential and abilities for their learning and development. No single prescription in the form of direct telling of the information or training them in one or the other arts and skills can serve the purpose of inclusive education, i.e., providing equal access and opportunities to all the learners for their wholesome development according to their learning needs and potential with no discrimination of any kind.

The reflective level teaching here can work as most suitable alternative in place of direct teaching or instruction mode adopted in the memory or understanding level of teaching.

For proceeding in this concern the teacher may put the students of an inclusive class in a situation:

- 1) To work out the solution of a problematic situation,
- 2) To collect data and information about getting acquainted with some facts,
- 3) To seek application and true value of a generalised principle, and
- 4) To construct, create and produce something new or of some use at their own while working alone or in group.

Putting them in such problematic, self-learning and pushing situations, every learner in the inclusive set-up has sufficient freedom to reflect upon his own abilities, previous experiences, skills and potential for proceeding on his learning

path. No one has to wait for others as he or she is free to utilise his/her capacities or potential at the utmost level for his highest learning or development. Intellectually superior, normal, slow or backward, and the variety of disabled such as hearing, visually, locomotor disabled, learning disabled and mentally sub-normals, all can strive and gain the desired milestones in such reflective level teaching-learning set-up well in tune with their strengths and limitations.

4.1.6. Multi-sensory Teaching

Multi-sensory teaching is an important aspect of instruction for dyslexic students that is used by clinically trained teachers. Effective instruction for students with dyslexia is also explicit, direct, cumulative, intensive, and focused on the structure of language. Multi-sensory learning involves the use of visual, auditory, tactile (feeling) and kinaesthetic (awareness of motion) to enhance memory and learning of written language. The teacher uses these senses to fully engage different parts of the students' brain while learning fluency in spelling, reading and handwriting all at the same time.

Multi-sensory techniques are frequently used for children with learning differences. Studies from the National Institute of Child Health and Human development (United States of America) have shown that for children with difficulties in learning to read, a multisensory teaching method is the most effective teaching method.

4.1.6.1. Types of Multi-sensory Teaching Techniques

Some of the multi-sensory teaching techniques which could be used to assist a student in his/her learning are as follows:

- 1) **Visual Techniques:** Visual techniques are used to stimulate visual reasoning and learning. Visual learning methods include diagrams, modelling, photos and video. Anything that will display something to the student is considered visual. Mind maps are a great way for a visual learner to write and organise ideas down. It includes:
 - i) Text and/or pictures on paper, posters, models, projection screens, computers or flash cards,
 - ii) Use of colour for highlighting, organising information or imagery,
 - iii) Graphic organisers, outlining passages, and
 - iv) Student created art, images, text, pictures and video.
- 2) **Auditory Techniques:** Auditory learning methods include dialogue, clapping, rhymes or anything that can be heard. Teachers' use clapping or tapping as a means of auditory aid. Audio books are really effective for students (or anyone) who is an auditory learner, or if they struggle with reading. It includes:
 - i) Books on tape, peer-assisted reading, paired reading and computerised text readers,
 - ii) Video or film with accompanying audio, and
 - iii) Music, song, instruments, speaking, rhymes, chants and language games.
- 3) **Tactile Techniques:** Multisensory techniques that involve using the sense of touch are called tactile methods. Tactile learning includes feel and touch.

Teachers use anything textured or raised to help with tactile learning such as coins, sand, dice and clay. This learning technique often engages fine motor skills so it may challenge children who struggle with this.

4) **Kinaesthetic Techniques:** Kinaesthetic learning methods include movement and doing things (i.e., writing and anything physical). This type of learning method engages the gross motor skills. Teachers will often use 'air writing' as methods for kinaesthetic learning; where the children have to write a word in the air while sounding it out. Children with dyspraxia typically have weak kinaesthetic skills.

4.1.6.2. Importance Multi-sensory Teaching

Multi-sensory teaching techniques and strategies stimulate learning by engaging students on multiple levels. They encourage students to use some or all their senses to:

- 1) Gather information about a task,
- 2) Link information to ideas they already know and understand,
- 3) Perceive the logic involved in solving problems,
- 4) Learn problem solving tasks,
- 5) Tap into non-verbal reasoning skills,
- 6) Understand relationships between concepts, and
- 7) Store information and store it for later recall.

Using a multi-sensory teaching technique means helping a child to learn through more than one sense. Most teaching techniques are done using either sight or hearing (visual or auditory). The child's sight is used in reading information, looking at text, pictures or reading information based from the board. The hearing sense is used to listen to what the teacher says. The child's vision may be affected by difficulties with tracking or visual processing. Sometimes the child's auditory processing may be weak. The solution for these difficulties is to involve the use of more of the child's senses, especially the use of touch (tactile) and movement (kinetic). This will help the child's brain to develop tactile and kinetic memories to hang on to, as well as the auditory and visual ones.

4.2. SUPPORT SERVICES AND PARTNERSHIP IN TEACHING

4.2.1. Support Services

To assist schools to address the diverse learning needs of their students, additional targeted resources are provided either directly to schools or to regions. The department provides resourcing directly to schools to allow greater flexibility, and to enable schools to explore innovative ways to tailor programmes to maximise students' potential. These resources are in addition to the classroom teachers and general teacher aide time already allocated to schools.

The prime aim of school-based support services is to enhance student learning by interweaving continuous teacher professional development, school-based

curriculum development and school development. Providers of support services include various support sections in the education bureau and institutions subsidised by the Education Development Fund. Schools can apply for individual support services according to their developmental needs. With reference to educational trends and school context, school support agents collaborate closely with teachers and principals to develop school-based curricula with a view to catering for student learning needs and enhancing the professional knowledge and capabilities of participating teachers and principals.

4.2.1.1. Needed Support Services for Inclusive School

Schools provide a continuum of support and services for students with disability and learning difficulties. This may include:

- 1) Guidance officers,
- 2) Support and resource teachers,
- 3) Speech-language pathologists,
- 4) Behaviour support teachers,
- 5) English as an additional language or dialect,
- 6) Nurses,
- 7) Teacher aides,
- 8) Assistive technology,
- 9) Alternative format materials,
- 10) Special provision for assessment, and
- 11) Other supports available at the school level as determined by the school.

4.2.1.2. Types of Support Services

Inclusive support teachers provide direct support, indirect support, and assistance to school personnel to successfully plan for and implement successful inclusive practices. The types are:

- 1) **Direct Support Services:** Direct support may involve assistance given to the student within the general education classroom or special education classroom, as well as assistance given to the student in a one-on-one or small group setting. Direct support services include:
 - i) Programmatic support such as itinerant emotional support,
 - ii) Itinerant autistic support, and
 - iii) Itinerant life skills support.
- 2) **Indirect Support Services:** Indirect support occurs outside the classroom. It may include:
 - i) Curricular modifications,
 - ii) Co-planning with the general education teacher,
 - iii) Collaborative team meetings, and
 - iv) Assistance in developing behaviour intervention plans.
- 3) **Supports for School Personnel:** Supports for school personnel may include the provision of information on specific disabilities, instructional and/or behavioural strategies, and educational resources.

Assistive Technology or Devices

Assistive technology or devices are identified in the **IDEA 2004** as “Any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customised, that is used to increase, maintain, or improve the functional capabilities of children with disabilities.”

Services Offered by Assistive Technology

As defined in IDEA, an assistive technology service is “any service that directly assists a child with a disability in the selection, acquisition, and use of an assistive technology device.” The term includes:

- 1) The evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child’s customary environment,
- 2) Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities,
- 3) Selecting, designing, fitting, customising, adapting, applying, retaining, repairing, or replacing assistive technology devices,
- 4) Coordinating and use other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programmes,
- 5) Training or technical assistance for a child with a disability or, if appropriate, that child’s family, and
- 6) Training or technical assistance for professionals including individuals or rehabilitation services, employers, or other individuals who provide services to employ, or are otherwise substantially involved in the major life functions of children with disabilities.

4.2.2. Developing Positive Relationship between School and Home

A family-school relationship is a way of thinking about forming connections between families and schools. Forming connections means developing an intentional and on-going relationship between school and family, that is designed to enhance children’s learning and to address any obstacles that may impede it.

One condition for teachers to be successful in their teacher role is to have good relations with parents of the pupils. Most teachers are aware of this fact. Parents and teachers see different sides of the child and together they can get a more complete picture.

The main tasks of the school are to convey knowledge and in cooperation with the homes promote the students development to responsible people and members of the society. Therefore, the school must work in co-operation with the homes. The teachers must co-operate with and continuously inform the parents about the students’ school situation, happiness and knowledge development.

Many factors influence the co-operation between home and school:

- 1) Families are interested in and concerned about their children’s learning. They want to be involved, but typically report not knowing what they might do at home to help their child be more successful at school.

- 2) Families from all strata including those from diverse cultural, ethnic, and socioeconomic backgrounds are involved in supporting their children's education.
- 3) Families in general and those from diverse cultural, ethnic, and socioeconomic backgrounds in particular often wait for guidance from educators before interacting with the school.
- 4) Educators generally value family involvement but report needing information on how to form collaborative partnerships with families.

4.2.2.1. Types of Family-School Involvement

Following may be considered family school involvement:

- 1) **Parenting:** Families establish home environments to support learning. Schools may assist families with parenting skills, help parents to understand child and adolescent development, and work with families to provide home conditions that support learning. Following practices are considered for educators that include:
 - i) Offer information on how parents can help their children succeed in school through a variety of methods, e.g., workshops, videos, books, tip sheets, computerised messages, bulletin boards.
 - ii) Develop family support programmes, parent education offerings responsive to family preferences, and parent centres in the school.
 - iii) Provide home visits at critical transition points, e.g., elementary to middle school to establish personal contacts, provide information, and address parents' questions.
- 2) **Communicating:** Develop effective two-way, frequent, systematic communication between home and school about school programmes and children's progress. Sample practices for educators to consider include:
 - i) Establish an easy-to-use contact system between home and school,
 - ii) Hold an individual interview and joint assessment of the child when first attending the school, and
 - iii) Create parent-teacher-student partnership agreements to specify roles and responsibilities.
- 3) **Volunteering:** Schools have in place recruitment, training, and organisational processes for families that enable them to support children and school programmes. Parents help and support school activities and functions. Sample practices for educators to consider include:
 - i) Survey parents to assess their skills, talents, interests, and needs, and use the results to establish a volunteer programme.
 - ii) Expect parents to volunteer and offer many options. For example, offer busy parents a 'Call Me Once Volunteer Card' that commits them to serve only once a year unless permission to be called again is granted.
 - iii) Include all family members in field trips, special programmes, and school activities.
- 4) **Learning at Home:** Parents support and enhance learning at home. Schools ensure parents have the information needed to create family learning environments. Sample practices for educators to consider include:
 - i) Provide interactive homework activities to increase parent-child communication about schoolwork.

- ii) Make a difference evening, where parents receive an overview of what students will be learning, how they will be assessed, what parents can expect, and how they can assist and make a difference.
- iii) Use home-school assignment books to facilitate communication about ways to encourage learning for children and youth.

5) **Decision-Making:** Parents participate in governance and advocacy activities. They make joint decisions with educators, including decisions for both practices and policies. Sample practices educators may consider include:

- i) Ensure that parents' voices are heard on school decisions, e.g., grade level family representatives on school councils, school improvement teams, etc.
- ii) Develop a family-school team to design ways to address issues that require parent-school input and cooperation for a successful outcome.
- iii) Conduct parent focus groups to increase understanding of critical issues and necessary resources, e.g., improving student success on required tests.

6) **Collaborating with the Community:** Collaborate with business and community agencies in ways that support students' learning and school experiences. Sample practices educators may consider include:

- i) Work with local faith-based organisations to sponsor 'Education Sunday', a workshop to help families share ideas for providing academic and motivational support to students.
- ii) Provide information on community resources to address parent concerns.
- iii) Establish an Adopt-a-School programme, a family coordinated effort that arranges for businesses to provide funds and services to the school (e.g., after school homework/ recreational programmes).

4.2.2.2. Beliefs and Attitudes that Foster Collaborative Family-School Partnerships

To realise collaborative partnerships fully, certain beliefs and attitudes are needed. How educators think about family involvement is critical to their success in working productively with families. Successful collaborative relationships with families are based on a number of beliefs about families and the perceived benefits of family-school relationships. Beliefs associated with positive family-school partnerships include:

- 1) **Family-School Relationships should be Focused on Student Progress and Success:** The reason for educators and families to cooperate, coordinate, and collaborate is to enhance learning opportunities, educational progress, and school success for students. Therefore, family-school interactions focus on what each partner can do to improve the development and learning of children and youth.
- 2) **Families are Equal Partners in Attaining Educational Goals for Students:** Educators view families and creating family-school relationships as essential for children's optimal academic, social, and emotional learning.
- 3) **Both In- and Out-of-School Times are Recognised as Influencing Students' School Performance:** When student concerns are described, the

reciprocal influence between family and school contexts is considered. Decisions made at school affect home, and *vice versa*.

- 4) **Sharing Information about Child Behaviour Across Settings is Valued:** Each partner recognises that he or she sees the child primarily in one setting and understands how the child is reacting in the other setting. Differences in child observations are expected (e.g., the child does not behave the same way in home situations) and are valuable for assessment and intervention planning.
- 5) **Collaboration has a Positive Impact on Student Learning:** Educators believe that home and school can accomplish more than either home or school can accomplish alone. They also believe in equality (the willingness to listen to, respect, and learn from one another) and parity (the blending of knowledge, skills, and ideas to enhance positive outcomes for children).
- 6) **Families should be Active Partners in Decision-Making:** Educators believe in the value of making decisions with parents. They avoid such practices as making decisions in separate meetings prior to meeting with parents. Educators recognise parents' expertise and seek input from them on a regular basis. Educators believe in including parents when addressing concerns about student learning.
- 7) **Problems are Solved Mutually and without Blaming Each Other:** When students are experiencing school difficulties, school personnel and parents understand that two-way communication is necessary. Families and school personnel realise that they see the children's behaviour in their respective settings and, therefore, withhold judgment until both sides have had an opportunity to provide input. Blame is not attributed to only the family or only the school.
- 8) **Problem Solving is based on a Positive, Strength-Based Orientation:** Families and school personnel operate from a non-deficit model and they focus on strengths of individuals (educators, parents, and student). School personnel view parents as resources for addressing educational concerns. Collaborative problem solving efforts help to foster optimism about what school personnel and families can accomplish by working together.
- 9) **Family-School Relationships are Cultivated and Sustained Over Time:** Family-school relationships are an on-going process. Families and educators work together within and across school years to address mutual concerns and provide mutual support for enhancing the learning progress of children and adolescents. Thus, educators realise that working as partners with parents this year will strengthen the partnership in subsequent years.

4.2.2.3. Role of School

Individuals and institutions beyond the family also can help in fulfilling the supportive roles. Where children are at risk, the course of their development can be altered in early childhood by effective interventions that change the balance between risk and protection. Early child care and education programmes are by far the most widespread of such interventions. With more and more parents working long hours outside the home, such programmes increasingly serve children from all backgrounds and circumstances.

Educational Provision for Children with Educational Disability and Learning Disability

IDEA has prescribed several key requirements, as follows:

- 1) **Free Appropriate Public Education:** States and local school districts must offer inclusive education to all children with disabilities between the ages of 3 and 21 years.
- 2) **Identification and Evaluation:** States and school districts must identify, locate, and evaluate all children with disabilities, without regard to the severity of their disability, to determine their eligibility and need for special education and related services. This requirement is referred to as "child find", and the principle is known as "zero reject", meaning that no child can be denied an education.
- 3) **Individualised Education Programme:** Each child with a disability who is deemed eligible will receive an Individualised Education Programme (IEP) describing his or her specific educational and service needs, with parent participation on the IEP team. Individualised Family Service Plans (IFSPs) are used for infants and toddlers.
- 4) **Least Restrictive Environment:** Children with disabilities must be educated with children without disabilities "to the maximum extent possible", in the Least Restrictive Environment (LRE).
- 5) **Due Process Safeguards:** Procedural safeguards must be put in place for children and their families, including the right to mediation, request for complaint investigation, and/or a due process hearing; the right to appeal to a federal district court; and, if they prevail, the right to receive attorneys' fees.
- 6) **Parent and Student Participation and Shared Decision-Making:** Schools must collaborate with parents and students with disabilities in the design and implementation of special education services. The parents' (and, whenever appropriate, the student's) input and wishes must be considered in IEP goals and objectives, related-service needs, and placement decisions.

Educational Practices for Disabled Children

School authorities play an important role in developing the foundation of inclusive programme for students with disabilities. Even after the well-planned inclusive services, teachers find it difficult to teach students (disabled) effectively in general education classrooms.

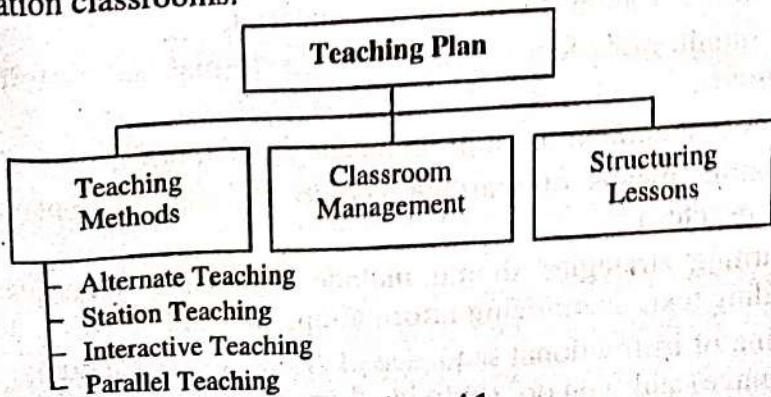


Figure 4.1

- 1) **Teaching Methods:** To make teaching effective, following teaching methods can be considered:
 - i) **Alternative Teaching:** One person teaches to a small group of students and other teaches the remaining students.
 - ii) **Station Teaching:** Small group of students move to various places/stations for instructions, reviews or practice.
 - iii) **Interactive Teaching:** Teachers alternate the roles of presenting, monitoring and reviewing the instructions.
 - iv) **Parallel Teaching:** Students are divided into the mixed-ability groups, and each co-teaching, partner teaches the same material to one of the groups.
- 2) **Classroom Management:** Teachers teaching the disabled students should know-how to manage classroom for effective teaching and also for effective learning of students. Some of the below mentioned points can be considered:
 - i) Display classroom rules,
 - ii) Provide purposeful movement opportunities,
 - iii) Planning of transition time should be done like between subjects or tasks, before or after lunch, etc.,
 - iv) Visually monitor student activity,
 - v) Help students to organise their materials by using folders, checklist, etc.,
 - vi) Post the daily schedule,
 - vii) Create a structured classroom, and
 - viii) Designate separate areas for group and individual work.
- 3) **Structuring Lessons:** Just like classroom management, it is also necessary to restructure the lesson so that teaching can be done effectively. For this, these mentioned points can be used:
 - i) Differentiate instructions by using flexible grouping,
 - ii) Graphic organisers should be used to assist students with organising information in different meaningful ways,
 - iii) Provide support to student as they are learning new material,
 - iv) Employ different learning strategies to promote new learning,
 - v) Teach the strategies with content material,
 - vi) To monitor student's progress; use formal and informal assessment methods,
 - vii) Represent content in multiple means (visual, oral),
 - viii) Flexible means of learning should be used (role-playing software's, videos, etc.,)
 - ix) Learning strategies should include organising materials, taking notes, reading text, memorising information, etc., and
 - x) Using of instructional sequence of 'I do' (teacher model), 'we do' (group practice) and 'you do' (individual practice).

4.2.2.4. Role of Home/Family in Inclusive Education

Across families of diverse racial and socio-economic backgrounds, it is clear that parents' emotional well-being, positive interparental relations, and consistent parental support, sensitivity, and discipline facilitate children's well-being, often to the point of compensating for economic hardship, family disruption, and other adverse life circumstances. In general, scholars have conceptualised different roles that families can play in helping prepare their young children for school. These roles of families are:

- 1) **Families as Nurturers and Supporters:** The family's most basic role is to provide for their children's health, safety, security, and emotional well-being. As the National Research Council concludes, "Children grow and thrive in the context of close and dependable relationships that provide love and nurturance, security, responsive interaction, and encouragement for exploration".
- 2) **Families as Teachers:** Families can do many things to support children's learning and their motivation to learn. Family teaching roles include:
 - i) Establishing an at-home learning environment for the whole family,
 - ii) Expressing high expectations and encouraging learning,
 - iii) Providing opportunities for learning and development within the community,
 - iv) Providing books and other learning materials,
 - v) Reading and telling stories, and
 - vi) Practicing and transmitting cultural traditions.
- 3) **Families as Intermediaries:** As young children grow from infancy and as their world expands beyond the immediate home environment, the family functions as "an important intermediary as young children venture into the neighbourhood environment". Family members help negotiate and oversee their children's ties to neighbours, friends, and the broader community, helping children learn and observe social protocols and function safely and productively within their spheres of existence.
- 4) **Families as Advocates:** In helping their children move beyond the home, families select from the range of choices available, depending on the family's resources and location and the environments they believe will be most supportive. They seek out and advocate for services and opportunities, and intervene on their children's behalf when problems arise.

4.3. TEACHING AND CO-TEACHING PERSONNEL

Teaching Personnel provides both teachers and support staff to state and independent schools as well as other educational establishments.

Co-teaching is a teaching relationship in which general and special educators share responsibility for planning, delivery and evaluation of instruction for a heterogeneous group of students. These teachers work in a coactive and coordinated fashion in which they use techniques which allow students of varying

abilities to achieve their potential. All special education teachers co-teach with general education teachers. In an inclusive set-up following personnel are involved:

- 1) Parents and Teacher,
- 2) Teacher and Special Teacher,
- 3) Team Teacher,
- 4) Parents,
- 5) Special educator,
- 6) Speech Therapist,
- 7) Physiotherapist,
- 8) Occupational Therapist,
- 9) Counsellor.

Related services' providers such as speech-language pathologists, school psychologists, physical therapists, and occupational therapists serve vital roles in supporting the education of many students with disabilities in general education environments. Related services personnel can provide students with disabilities access to an appropriate education and facilitate students' pursuit of important learning outcomes through the application of the specific skills associated with their respective disciplines and the collaborative skills required to work effectively with others in the context of a family-centred approach in general education classrooms and other inclusive environments.

4.3.1. Parents and Teachers

Teachers are the backbone for developing Inclusive practices. They can make inclusion. Teachers need to develop the capacity to improve and adjust the curriculum to deliver educational programmes, which are appropriate for all children. A shift in philosophy is needed from a focus on deficits to an understanding that all children are capable of learning. Rather than placing responsibility for failure on the child or the environment, the task is to specify the conditions under which diverse students can achieve optimal learning success.

The needs of the parents are about getting different kinds of information from the school and explicit needs of the teachers are to establish co-operation with the parents and to find time for meetings with the parents. Both school leaders and school politicians ask for the parents. They are needed to support the school and the teachers in their work with the students. A trustful cooperation between the school and the parents is crucial for good results. The parents' engagement and interest must be taken advantage of by the school.

Parents and teachers agree about the importance of cooperation. An improved cooperation influence children's school achievement positively.

The expectations of the parents are that school should offer their children a good education, the teachers should stimulate their children and it was also important that the children were given the kind of support they needed. The parents also wanted the teachers to report about their children's progress and inform them about all sorts of problems in school. The expectations of the teachers are, e.g., that the parents helped their children with the home work and that the parents came to the individual conferences.

Role of Parents

The handicapped person often finds difficulty in exercising his right to live in society to share space, work and housing with those who do not have a disability. Certain narrowness in our family and the society's ability to accept them seem to be connected in part with an unclear perception of the intrinsic dignity of the disabled humans.

Role of parents are:

- 1) Parents as a source of love and solidarity, *love & Solidarity*
- 2) Parents as a teacher of the disabled, *teacher*
- 3) Communication with the child with special needs, *communicat*
- 4) Role in early identification of disability, and
- 5) Parent's roles in the transition process.

Role of Teachers

Role of teachers are:

- 1) Students are individuals with different personalities, tastes, skills and needs. In such a situation, the role of teacher assumes a new dimension. For a successful inclusive set-up, adoption of a collaborative model is the key in which the general and special education teachers bring their skills, training and perspectives to the team.
- 2) The primary responsibility of special education teachers is to provide instruction by adopting and developing materials to match the learning styles, strengths and special needs of each student.
- 3) The regular teacher plays a crucial role in training, educating and providing inputs about children with special needs. She also attends to the parents queries, observes attitude of peers and can give a first person account of the practical issues faced in inclusion.
- 4) Special education teachers must be patient, able to motivate students, understanding their special needs and accepting differences. They must be creative and apply different types of teaching methods to teach students with learning difficulty. Communication and cooperation are essential skills because they spend a great deal of time interacting with others including students, parents and school faculty.

4.3.2. Teacher and Special Teacher

Inclusive class teacher is a teacher who responds to the diverse needs of all learners, using child-centred approaches and appropriate active learning methods. Teachers play an essential role in providing quality education. **McKinsey and Company** said that "the quality of an education system cannot exceed the quality of its teachers."

Sanders and Horn (1998) suggested that "the quality of the teacher contributes more to learner achievement than any other factor, including class size, class composition, or background". The need for 'high quality' teachers equipped to meet the needs of all learners becomes evident to provide not only equal opportunities for all, but also education for an inclusive society.

Reynolds (2009) says that "it is the knowledge, beliefs and values of the teacher that are brought to bear in creating an effective learning environment for pupils, making the teacher a critical influence in education for inclusion and the development of the inclusive school."

4.3.2.1. Qualities of an Inclusive Teacher

An effective inclusive teacher comprised of various qualities. These qualities are mentioned as follows:

- 1) **Sociability:** Teacher is an important part and parcel of society. An inclusive teacher should be sociable, cooperative and guiding in his profession.
- 2) **Good-Humoured:** An inclusive teacher should be good humoured. Being a sense of humour, lighten the personality and invigorate teaching of special education students. Regardless of their disabilities, students can sense when a teacher enjoys with them and their personalities. This is one of the primary characteristics of a special education teacher.
- 3) **Patience and Tolerance:** An inclusive teacher should have patience and tolerance in his profession. Due to having these qualities he can face diverse conditions of the schools and can teach the matter until students get understand properly.
- 4) **Skilled Speaker:** Being a skilled speaker an inclusive teacher can effectively forward his thoughts to others. His speaking ability makes him successful in his profession.
- 5) **Well Organised:** All students need structure to succeed, but special education students need it more. Whether a teacher are teaching mildly dyslexic, severely handicapped or intellectually disabled students, he need to provide the class with a physical and academic structure of conducive learning. This is at the heart of teaching special education.
- 6) **Acceptable:** Special education teaching provides the opportunity to love and appreciate others regardless of their capabilities or behaviour.
- 7) **Creative in Teaching:** The ability to find new ways to explain and demonstrate subject matter is often the single most effective characteristic a special education teacher can possess. Bringing creativity into the classroom will have the benefit of enriching your classroom environment as well. This is another one of the great qualities of a special education teacher.
- 8) **Be Calm and Sober:** Students with intellectual disabilities, emotional disturbance or autism can lose it when teachers are not direct, firm, kind and helpful, even in difficult situations. An inclusive teacher should have a great temperament to become a special education teacher. He should be calm and sober.
- 9) **Confident:** In a special education classroom, a teacher needs to be self-assured in decisions and leave no room for self-doubt, or it can be too easy to lose control. When teachers continually lead students who are unused to taking the lead themselves, he can start questioning own decisions.
- 10) **Intuitive:** Some auditory learning disabilities, injuries and other handicaps make special education students awkward communicators. When teaching special education, you will need to be watchful and involved so you can foresee students' needs and address their concerns when they lack the ability to tell you about them.

11) **Optimistic:** Sometimes comparatively simple tasks can become long, arduous battles for students with learning disabilities. Their teachers need to offer hope and encouragement in difficult situations. Think about how frustrating it would be for you to have to try so hard to master subjects, techniques or activities. Teaching special education means celebrating any and all victories, whether for long-awaited successes or simple attempts.

12) **Dedicated towards Students:** Regularity and dependability are important qualities to have when special education teaching. Taking the opportunity to work with students for an extended period of time can be a huge confidence builder for them. Plus, once you know a student's strengths and struggles, no one is better equipped than you to help them. Think about your dedication and whether it can go the distance in meeting the needs of these exceptional students.

4.3.2.2. Role of Inclusive Class Teachers to Meet Special Needs of Children with Disabilities in Inclusive Schools

The role of teachers in meeting the special needs of children with disabilities vary from one disability to other. However, there are certain common roles played by the teachers. These are mentioned below:

- 1) Identification of the children with disabilities in the classroom.
- 2) Referring the identified to the experts for further examination and treatment.
- 3) Accepting the children with disabilities.
- 4) Developing positive attitude between normal children and disabled children.
- 5) Placing the children in the classroom in proper places so that they feel comfortable and are benefited by the classroom interaction.
- 6) Enabling the children with disabilities to avail the facilities provided for them under IED scheme.
- 7) Removing architectural barriers wherever possible so that children with disabilities move independently.
- 8) Involving the children with disabilities in almost all the activities of the classroom.
- 9) Making suitable adaptation in the curriculum transaction so that the children with disabilities learn according to their ability.
- 10) Preparations of teaching aids/adaptation of teaching aids which will help the children with disabilities learn.
- 11) Parental guidance and counselling and public awareness programme through school activities.
- 12) Acquiring competencies which are essential in meeting the needs of the children with disabilities.
- 13) Cooperating with resource teachers if resource rooms are available.
- 14) Collaborating with medical and physiological personnel social workers, parents and special teachers.
- 15) Providing scope for cooperative learning among disabled and normal children.
- 16) Conducting case studies and action research related to the specific problem of children with special needs.
- 17) Construction of achievement and diagnostic tool.
- 18) Adaptation in evaluation for children with special needs.
- 19) Nurturing the talent among children with disabilities.
- 20) Providing remedial instruction to the children who require it.

4.3.2.3. Role of Classroom Teachers in Shaping Inclusive Classroom

Teachers place a high priority on strengthening programs to improve outcomes for diverse learners in attaining college and career readiness, with teachers in high-poverty schools and schools serving large populations of students of colour being most likely to state this as the highest priority. Although a majority of teachers feel they are able to differentiate instruction effectively to meet individual students' learning needs. They act in following way:

- 1) **Appreciate and Accommodate the Similarities and Differences among the Students' Cultures:** Effective teachers of culturally diverse students acknowledge both individual and cultural differences enthusiastically and identify these differences in a positive manner. This positive identification creates a basis for the development of effective communication and instructional strategies. Social skills such as respect and cross-cultural understanding can be modelled, taught, prompted, and reinforced by the teacher.
- 2) **Build Relationships with Students:** Teachers try to build-up positive relationship with students. Developing an understanding of students' lives also enables the teacher to increase the relevance of lessons and make examples more meaningful.
- 3) **Catalysts for Change in the Educational System:** It is vital that teachers participate in decision-making and in educational planning and reform. The very nature of teachers makes effective partners in realising and maximising the potential of education in the fight against gender inequality. All the analyses on the relation between education and gender inequality are the urgency to improve the status of teachers and their working conditions and to address their continuing development as professionals. These are prerequisites for improving the quality of education in all countries, especially in developing countries where most of the world's inequality prevailing. Having many malpractices in the education system, teachers can work within to influence change but also advocate for change as they grow and implement it as they assume leadership roles. This is a lifelong process. Hence, transcends the internee ship or early teaching practice to educational leadership roles and involves major changes of the entire educational system such that there are policy shifts, programme changed and remodelling, curriculum related changes and transformation of the means, ways, and ends of the education system.
- 4) **Focus on the Ways Students Learn and Observe Students to Identify their Task Orientations:** Once students' orientations are known, the teacher can structure tasks to take them into account. **For example**, before some students can begin a task, they need time to prepare or attend to details. In this case, the teacher can allow time for students to prepare, provide them with advance organisers, and announce how much time will be given for preparation and when the task will begin. This is a positive way to honour their need for preparation, rituals, or customs.
- 5) **Teach Students to Match their Behaviours to the Setting:** We all behave differently in different settings. **For example**, we behave more formally at

official ceremonies. Teaching students the differences between their home, school, and community settings can help them switch to appropriate behaviour for each context. **For example**, a teacher may talk about the differences between conversations with friends in the community and conversations with adults at school and discuss how each behaviour is valued and useful in that setting. While some students adjust their behaviour automatically, others must be taught and provided ample opportunities to practice. Involving families and the community can help students learn to adjust their behaviour in each of the settings in which they interact.

- 6) **Develop Positive Attitude:** All schools share the mission of helping every student reach his or her full potential. However, teachers often find students in a class showing much diversity in their needs and interests. Students differ a lot in their motivation, prior knowledge and skills, learning styles, multiple intelligences, interests and backgrounds. To tap each student's potential; teachers need to value each student as an individual capable of making progress. Embracing learner diversity is therefore an important direction in school-based curriculum development.
- 7) **Develop Sensitivity:** Nevertheless, schools have to realise that there can hardly be a one-size-fits-all approach to addressing learner diversity. To ensure effective learning for all students in the classroom, teachers need to develop sensitivity to individual students' needs and respond to them by flexibly adapting their teaching strategies and content. Teachers can develop such sensitivity through analysing different sources of information (classroom observations, assessments, portfolios, learner profiles, etc.,) To find out how each student learns and design an appropriate curriculum for them. With a good grasp of students' characteristics, teachers can turn learner diversity into an asset by capitalising on their different talents, interests and backgrounds brought to the classroom setting. For instance, students can make unique contributions by playing different roles or doing different tasks inside and outside the classroom. Teachers can then give their students opportunities to develop their potential.
- 8) **Setting Expectations:** Irrespective of the extent of learner diversity existing in the classroom, to teachers and school leaders, raising students' achievement is imperative. Among different students, lower-achievers have presented the biggest challenge for teachers. By setting low expectations on them and giving them few opportunities to engage actively in activities requiring higher order thinking or application of language and generic skills (e.g. creativity), teachers may sabotage the chance of improving their achievement. For more able students, they also need to stretch their potential. Thus, it is important for schools to set reasonably high expectations on students and provide the right level of support in order to motivate them to make consistent effort in their learning.
- 9) **Give Proper Instruction:** To be able to provide the right level of support, teachers' instruction plays an important role. Quality instruction is reflected by teachers' ability to respond appropriately and flexibly to students' different needs. Teachers adjust their teaching strategies to support individual

students' learning. For example, they may use cooperative learning in some tasks and provide multi-sensory stimuli in some other tasks. To exercise such sound judgements, teachers need to possess rich knowledge and skills in using different strategies and content to improve every student's learning and achievement. Such knowledge and skills can help them make professional decisions on the most appropriate teaching strategies to support students under different circumstances.

- 10) **Provide Co-Teaching:** Co-teaching is a powerful model for both regular education and special education teachers. This partnership can set the stage for a variety of scenarios that meet the needs of diverse-needs learners in a classroom.
- 11) **Concentrating on Effective Learning:** Effective learners have learned that how to be an effective learner. This involves not just the acquisition of strategies but also the monitoring and reviewing of learning to see whether particular strategies are effective. No one strategy works for all goals and purposes, despite any claims it might make. Learning is an activity of construction (making meaning), not one of reception. Learning is handled with others or in the context of others. Learning is driven by the intentions and choices of learners. To promote this type of learning involves action and reflection, collaboration, learner responsibility and learning about learning.

4.3.3. Team of Teacher

Team teaching involves a group of instructors working purposefully, regularly, and cooperatively to help a group of students of any age learn. Teachers together set goals for a course, design a syllabus, prepare individual lesson plans, teach students, and evaluate the results. They share insights, argue with one another, and perhaps even challenge students to decide which approach is better.

The team-teaching approach allows for more interaction between teachers and students. Faculty evaluate students on their achievement of the learning goals; students evaluate faculty members on their teaching proficiency. Emphasis is on student and faculty growth, balancing initiative and shared responsibility, specialisation and broadening horizons, the clear and interesting presentation of content and student development, democratic participation and common expectations, and cognitive, affective, and behavioural outcomes.

The Inclusive education teacher is part of the teaching staff who, as a member of the Inclusive Education Team, has particular responsibility for working with other teachers to ensure that the learning needs of identified students in all classes are supported. The Inclusive Education Teacher is responsible in the first instance to the Inclusive Education Team Coordinator and then to the Assistant Principal Teaching and Learning to progress the vision of the Inclusive Education Team.

4.3.3.1. Role of Team Teacher

The following are the role of tem teacher:

- 1) To promote Inclusive Education and best practice strategies to achieve this,
- 2) To support the coordinator in conducting parent interviews to discuss how individual student's learning needs are best addressed,

- 3) To assist teachers in the provision of resources and strategies to enable them to work effectively with students who have identified learning needs,
- 4) To work with Inclusive Education Assistants in supporting individual students and teachers,
- 5) To oversee the writing and approval of curriculum documentation required to assist the learning needs of identified students, and
- 6) To work with other groups within the college which are responsible for developing Inclusive Education practice.

4.3.4. Parents

Parental involvement can be referred to using a variety of terms such as parental participation, parental support or parent-teacher collaboration.

There is clear evidence that parental involvement is a major strategy for effective practice of inclusive education and is critically vital for educating learners with Special Educational Needs (SENs). Though significance of parental involvement in learners with SENs has never been in doubt, most recent literature argues that why parental involvement paradigm is a motivating factor for psycho-educational development of learners with SENs and positively linked with learner's emotional, social and academic achievement in school. Also, within the academic fields related to education of learners with Special Educational Needs (SENs) such as early childhood education, early intervention, special education, inclusive education among others, it is clearly observed that most, if not all, document parental involvement as a key strategy for promoting positive academic outcomes in children.

Parental involvement as a generic concept refers to quite diverse behaviours, depending on the motives of schools and parents, the chosen perspective (the parent or the school perspective) and the activities in which the involvement might become manifest.

Epstein defined six types of parental involvement in schools:

- 1) Assisting parents in child-rearing skills,
- 2) School - parent communication,
- 3) Involving parents in school volunteer opportunities,
- 4) Involving parents in home-based learning,
- 5) Involving parents in school decision-making, and
- 6) Involving parents in school-community collaborations.

4.3.4.1. Parent Rights and Responsibilities

Parents play a vital role in the education of their children with special needs by working in partnership with educators and other service personnel.

The School Act says that parents are entitled to:

- 1) Be consulted about the placement of their children with special needs,
- 2) Be involved in the planning, development, and implementation of their children's education programme, and
- 3) Be informed of a student's attendance, behaviour, and progress in school,

- 4) Receive annual reports about the effectiveness of educational programmes in the school district,
- 5) Examine all records kept by the school board pertaining to their children,
- 6) Register their children in an educational program through a school district, independent school, home school, or regional correspondence programme, and
- 7) Belongs to a Parent Advisory Council (PAC).

Parents have the right to:

- 1) Be informed and involved in education decisions that affect their children,
- 2) Be consulted, and to give consent, regarding the type and nature of all assessments, and to be informed of their results,
- 3) Have concerns listened to, and responded to, promptly and respectfully,
- 4) Have access to personnel such as teachers, teaching assistants, principals, board administrators, and board trustees for information and collaboration,
- 5) Have concerns treated with confidentiality,
- 6) Be able to observe their children in the classroom,
- 7) Receive progress reports that can be understood,
- 8) Be involved in the planning process and review of their children's Individual Education Plan (IEP),
- 9) Have trained teachers and appropriate support for their children,
- 10) Appeal a school district employee's decision that affects the education, health, and safety of their children, and
- 11) Educate their children at home.

Parents have the responsibility to:

- 1) Be aware of school policies, programmes, rules, and routines,
- 2) Share concerns openly and immediately with the appropriate person,
- 3) Keep concerns confidential and share information only on a "need to know" basis,
- 4) Respond to notes, memos, requests, etc.,
- 5) Tell the teacher and the school when things are going well, and when they are not,
- 6) Describe concerns clearly and objectively, and
- 7) Be reasonably patient and respectful with the people and the process.

4.3.4.2. Benefits of Parents Involvement

Henderson and Berla (1994) reviewed and analysed eighty-five studies that documented the comprehensive benefits of parent involvement in children's education. This and other studies show that parent involvement activities that are effectively planned and well implemented result in substantial benefits to children, parents, educators, and the school.

Benefits for the children are:

- 1) Children tend to achieve more, regardless of ethnic or racial background, socioeconomic status, or parents' education level.
- 2) Children generally achieve better grades, test scores, and attendance.
- 3) Children consistently complete their homework.

- 4) Children have better self-esteem, are more self-disciplined, and show higher aspirations and motivation toward school.
- 5) Children's positive attitude about school often results in improved behaviour in school and less suspension for disciplinary reasons.
- 6) Fewer children are being placed in special education and remedial classes.
- 7) Children from diverse cultural backgrounds tend to do better when parents and professionals work together to bridge the gap between the culture at home and the culture in school.
- 8) Junior high and high school students whose parents remain involved usually make better transitions and are less likely to drop out of school.

Benefits for the Parents:

- 1) Parents increase their interaction and discussion with their children and are more responsive and sensitive to their children's social, emotional, and intellectual developmental needs.
- 2) Parents are more confident in their parenting and decision-making skills.
- 3) As parents gain more knowledge of child development, there is more use of affection and positive reinforcement and less punishment on their children.
- 4) Parents have a better understanding of the teacher's job and school curriculum.
- 5) When parents are aware of what their children are learning, they are more likely to help when they are requested by teachers to become more involved in their children's learning activities at home.
- 6) Parents' perceptions of the school are improved and there are stronger ties and commitment to the school.
- 7) Parents are more aware of, and become more active regarding, policies that affect their children's education when parents are requested by school to be part of the decision-making team.

Benefits for the Educators:

- 1) When schools have a high percentage of involved parents in and out of schools, teachers and principals are more likely to experience higher morale.
- 2) Teachers and principals often earn greater respect for their profession from the parents.
- 3) Consistent parent involvement leads to improved communication and relations between parents, teachers, and administrators.
- 4) Teachers and principals acquire a better understanding of families' cultures and diversity, and they form deeper respect for parents' abilities and time.
- 5) Teachers and principals report an increase in job satisfaction.

Benefits for the School:

- 1) Schools that actively involve parents and the community tend to establish better reputations in the community.
- 2) Schools also experience better community support.
- 3) School programs that encourage and involve parents usually do better and have higher quality programmes than programmes that do not involve parents.

4.3.5. Special Educator

Introducing inclusion as a guiding principle has implications for teachers' practices and attitudes, be it towards girls, slow learners, children with special needs or those from diverse backgrounds like cognitive, ethnic and socio-economic. Teachers' positive attitudes towards inclusion highly depend on their experience with learners who are perceived as challenging. Teacher education, the availability of support within the classroom, class size and overall workload are all factors which influence teachers' attitudes. Negative attitudes of head teachers, inspectors of education, teachers and adults as parents and other family members are major barriers to inclusion. Thus, empowering all of these individuals, equipping them with new confidence and skills in the process of introducing inclusion as a guiding principle, will have implications for teachers' attitudes and performance.

4.3.5.1. Role of Special Educator

Special educator in facilitating inclusive education have great role to involve and to be involved children with special educational needs. They play crucial part in facilitating inclusive education. The role played by them can be understood under following points:

- 1) **To Prepare People for Entering in a Profession:** Florian and Rouse (2009) stated that "The task of initial teacher education is to prepare people to enter a profession which accepts individual and collective responsibility for improving the learning and participation of all children."
- 2) **To Create a New Generation of Teachers:** Cardona (2009) notes that concentration on initial teacher education "would seem to provide the best means to create a new generation of teachers who will ensure the successful implementation of inclusive policies and practices".
- 3) **Confront the Knowledge and Experiences:** Teacher educators must be in a position to confront the knowledge and experiences which prospective teachers bring to their learning and be able to engage in dialogue about complex issues of culture, language, disability and inclusion.
- 4) **Employ Diverse Approaches to Learning:** Bondy et al. (2007) stated that the teacher educators must employ diverse approaches to learning for their students. As teacher education students ultimately will become teachers of diverse learners, teacher educators must be explicit about this aspect of teaching and learning.
- 5) **Model the Role of the Teacher:** Teachers educators not only have the role of supporting student teachers' learning about teaching, but as stated above, they also model the role of the teacher. The way teacher educators model the promotion of certain views of learning could be a more important factor in shaping teacher behaviour than the content of the messages they are sending, despite inherent differences between the university and school contexts.
- 6) **Inclusive Teacher Recognises Individual Differences and Implements Learning Strategies for All:** The educational intervention is oriented to diversity and promotes learning strategies for all (equality), for quite a few

and for only one (equity). These are other essential aspects in the teacher Preparation Programmes. Quality, equality and equity concepts should be translated into specific actions of educative interventions.

- 7) **Have Impact on Both Teachers and the Learners:** It is given that the teacher educators have great impact on both the teacher candidates and the learners they will teach, it is critical for them to develop a self-awareness of culture, bias, and discriminatory practices as well as to examine the effects of their beliefs, attitudes, and expectations on teacher candidates.
- 8) **Considering own Position:** **Cushner (2006)** also says that teacher educators should consider how they position themselves regarding diversity before engaging with others.
- 9) **To Develop Experiences:** **Pugach and Johnson (2002)** say that teacher educators ought to develop experiences for pre-service teachers that provide them with ways to understand school collaboration as more than simply achieving good communication.
- 10) **Exert Mentoring Activities:** The teacher educators must exert mentoring activities, to enrich their teaching experience with the knowledge of a mentor who attends and promotes inclusion activities.

4.3.5.2. Problems of Special Educator

Although, teacher/educator plays a crucial role, but they have some problems:

- 1) **The OECD Project (2010) 'Educating Teachers for Diversity'** found surprisingly little knowledge on how teacher educators themselves are prepared for the challenge of diversity. They found that in many countries there appeared to be 'minimal oversight' on who can become a teacher educator, with ill-defined courses of study.
- 2) Many teacher educators have not had the transformative learning experiences necessary to challenge the assumptions underlying teacher education programmes.
- 3) One of the reasons why teachers are under-prepared for diversity is the lack of knowledge, experience, commitment and understanding of faculty members who teach teachers.
- 4) Lack of formal induction into the role of teacher educator may make transition difficult for many novice teacher educators.
- 5) Teaching experienced and pre-service teachers is a completely different skill to teaching in schools requiring 'deep understanding of teaching and of oneself as a teacher educator'.
- 6) Furthermore, many teacher educators will have attended traditional often academic schools and will have had little contact with peers with diverse needs. In addition, they are often required to focus on aspects other than teacher education practice such as curriculum development or research which increase time pressures.

4.3.5.3. Addressing Problems of Special Educator

Following steps can be taken for addressing the problems of special educator:

- 1) The teachers, educators and non-teaching support staff need to be trained and ready to assist children, youth and adults in their development and learning process on a daily basis.
- 2) Flexible teaching learning methodologies necessitate shifting away from long theoretical, pre-service based teacher training to continuous in-service development of teachers.
- 3) It must be noted that all specific knowledge and competence cannot be given to same individual.
- 4) Several specialisations are needed to cooperate with and support ordinary school staff.
- 5) Moreover, national policies must address the status of teachers, their welfare and professional development. The severe teacher shortage and lack of trained teachers has highly unfortunate consequences for the quality of learning.
- 6) Work related to addressing the needs in these areas cannot simply involve the creation of new courses. They suggest that the change process must engage early career teachers in conversations about their experiences that generate information to transform inclusive teacher/educator.

4.3.6. Speech Therapist

Without communication, social organisation is impossible. Individual who does not speak with any member of a group is necessarily isolated and cannot acquire knowledge, as it is constructed through dialogic exchange that allows the interpretation of world trade. One of the features common to different students who have Special Educational Needs related with or without disability and now to give a less clinical dye called "limitations in action", is the difficulty in communication, which results in isolation within his own family and consequently in the school and community.

Therefore, to improve the quality of life of these people are needed to optimize their communication through various alternatives, which allows for increased self-esteem, autonomy, interpersonal relationships and employment, given by: education, family life, community activities, and employment.

4.3.6.1. Role of Speech Therapist

Speech Therapist within an inclusive context seeks precisely to foster communication skills of parents, teachers, support staff and students through a process approach to the needs and potentials of the individual. It further agrees joint strategies with the aim of both the system chosen as the elements that compose it reflect reality in which these and his family operate. Speech Therapist to design and implement programmes of prevention, promotion, diagnosis and intervention for students with and without communication disorders, and advise teachers and parents among others, in conjunction with a trans disciplinary team of support. This helps students to participate as much as possible in all aspects of their educational, social

and vocational life, and prepare them to meet the communication demands of the working world in the 21st Century. Speech Therapist:

- 1) Provide effective communication and language supports within the classroom environment,
- 2) Collaborate with other members of the school team,
- 3) Promote higher academic achievement through communication supports,
- 4) Help facilitate peer supports and friendships,
- 5) Choose accommodations and modifications that improve communication and participation,
- 6) Match supports to students' specific strengths,
- 7) Keep expectations high for all students,
- 8) Maximise student independence, and
- 9) Respond to challenging behaviour in gentle, positive ways.

4.3.7. Physiotherapist

Physiotherapy is a "health care profession concerned with human function and movement and maximising potential. It uses physical approaches to promote, maintain and restore physical, psychological and social well-being, taking account of variations in health status. It is science-based, committed to extending, applying, evaluating and reviewing the evidence that underpins and informs its practice and delivery. The exercise of clinical judgment and informed interpretation is at its core."

Physiotherapists work with learners having difficulty with gross-motor skills, mobility skills, posture, or range of motion. They help learners acquire the skills needed for functional mobility in the school environment. Physiotherapists train learners in the use of assistive devices, and may recommend environmental modifications that give learners more independence.

The learners with physical disabilities have the same range of intellectual abilities as the population as a whole. Much physical impairment can take many different forms. They can be temporary or permanent, fluctuating, stable or degenerative, and may affect parts of the body or the whole of it. The learners may have experienced barriers to learning that relate to negative perceptions of disability and low expectations. The learners would have missed out on vital stages of learning during their schooling, affecting language acquisition and the development of literacy.

Addressing the education needs of learners with physical disabilities in ordinary education setting requires teachers to accommodate and provide reasonable solutions in the instructional process. Physical management of the learners is necessary in order for them to carry out education activities and daily routines. Appropriate physical management refers to procedures that allow teachers to lift and handle learners with mobility disorders without hurting themselves or the learner in the process.

Physiotherapists assess functional activities; observe and document data on learner performance and behaviour; implement behaviour-management programmes; instruct individuals and small groups; and assist teachers with modifying programs to meet the needs of individual learners.

4.3.7.1. Role of the Physiotherapist

Following are the role of physiotherapist:

- 1) The physiotherapist is concerned with the gross motor skills and mobility of a child. In cases where there has been an obvious physical difficulty the child will have been receiving support well before starting school.
- 2) The physiotherapist is often involved with children who have dyspraxia, are blind or have cerebral palsy, hydrocephalus, congenital syndromes, such as Downs Syndrome, spina bifida, and progressive muscular conditions such as muscular dystrophy. He/she may also be involved post-operatively where a child has a temporary physical difficulty, e.g., after an accident.
- 3) Although physiotherapists are happy to give advice to teachers, referrals must be done through the child's medical practitioner and it is advisable to discuss concerns with parents first.
- 4) As part of the multidisciplinary team the physiotherapist is also asked to write a report as part of the statutory assessment which then will be used to draw up the child's statement of Special Educational Needs if the child has any physical problems which impact on his/her access to the curriculum.
- 5) In school the physiotherapist will advise the teacher and classroom assistant on the kinds of activities which will be helpful, e.g., exercise routines and games which could be done during P.E. lessons.

4.3.8. Occupational Therapist

Occupational therapists are currently situating themselves within various school contexts in the education system. Therapists are seen as providing a service to special schools by either being employed by the school or via a private practice. The role of occupational therapists in school-based practice is affected by the growing trend towards inclusive education. Fully included learners require more occupational therapy support within the education setting.

The role the therapist often adopted in an educational framework is one of a consultant for parents and teachers. Occupational therapists provide education and training in how to adapt the classroom environment, how to modify teaching techniques and how to access assistive devices so as to adjust and meet environmental demands. The use of equipment or special techniques could allow the teachers to experience and thus understand the disability of the child.

Pediatric occupational therapists are trained to promote the development of motor, play, social, adaptive, and perceptual abilities of children who experience a wide range of developmental challenges. As a related services provider in special education programmes, an occupational therapist can support a child's ability to function as independently as possible and to benefit from his or her education programme.

Occupational therapy practitioners have specific knowledge and expertise to increase participation in school routines throughout the day. Interventions include:

- 1) Conducting activity and environmental analysis and making recommendations to improve the fit for greater access, progress, and participation,

- 2) Reducing barriers that limit student participation within the school environment,
- 3) Providing assistive technology to support student success,
- 4) Supporting the needs of students with significant challenges, such as by helping to determine methods for alternate educational assessment and learning,
- 5) Helping to identify long-term goals for appropriate post-school outcomes,
- 6) Helping to plan relevant instructional activities for on-going implementation in the classroom, and
- 7) Preparing students for successfully transitioning into appropriate post-high school employment, independent living, and/or further education.

4.3.9. Counsellor

School counsellors are key members of guidance and student services teams. Within the context of a collaborative, interdisciplinary team approach, school counsellors play a leadership role in the development and implementation of a comprehensive guidance and counselling programme.

Successful inclusion depends on the attitudes and actions of school principals and the investment of other school personnel as they create the school culture and have the ability to challenge or support inclusion

The school counsellor and the principal hold prominent positions within the school organisation. While the principal is viewed as the primary administrator, the school counsellor is often viewed as part of the administrative or leadership team. They both focus their efforts on securing a safe and appropriate education for all students; however, their perspectives regarding decision-making and approaches to problem solving can vary widely. While the principal tends to take a wider, organisational focus when approaching a decision, the school counsellor approaches decisions based on individual students or small groups.

School counsellors can take the lead in assessing school climate in relation to students with disabilities and initiating interventions or advocating for change when appropriate.

4.4. PROFESSIONAL TRAINING OF TEACHERS IN INCLUSIVE SCHOOLS

4.4.1. Concept of Teachers' Training Programmes

It is a reality that the existing teachers are the first generation practitioners of Inclusion, but fact is that it is a teacher only who can provide solutions to physical and learning barriers. Experience has also revealed that adequate training and support to regular teachers can enable them to provide solutions to barriers faced by Children with Special Needs (CWSN) at the school level. Teachers have developed teaching learning materials for children with special needs and also indigenous barrier free environment. Within the overall move towards Education

for all, and it is essential to ensure a concern with quality. This being the case, there will be a need to consider issues such as how can education systems, institutions and services within them, review their existing arrangements to provide adequate supportive measures to the teacher and child to make inclusive practices effective.

Teachers today must not only be well prepared to impart a quality education but also be sensitive to meeting the needs of their students regardless of their race, colour, creed, or national origin. It is important for the teacher to understand, believe, and practice the ideas of teacher efficacy, intentionality, educational psychology and pedagogy. An effective teacher should take into account the intellectual, social and cultural characteristics of each student being taught. Remaining cognizant of the fact that each child is different and has different learning styles a teacher in a diverse world is enthusiastic about their responsibility to teach all students in the most effective way. Whatever the learning styles visual, kinaesthetic, auditory, etc., the teachers who practice intentionality and believe in teacher efficacy plan the outcomes they want to achieve while having the power or belief in producing the desired result.

The OECD Report 'Teachers Matter', recognises that the demands on schools and teachers are becoming more complex as society now expects schools to deal effectively with different languages and student backgrounds, to be sensitive to culture and gender issues, to promote tolerance and social cohesion, to respond effectively to disadvantaged students and students with learning or behavioural problems, to use new technologies, and to keep pace with rapidly developing fields of knowledge and approaches to student assessment. Teachers, therefore, need confidence in their ability and the knowledge and skills in inclusive education to meet the challenges that they will encounter in the present school climate.

4.4.2. Various Programmes for Teachers' Training

Inclusive teacher training is a model for the qualities of an 'inclusive teacher', which makes use of a variety of active and participative methods, responds to the diversity of all learners and demonstrates how teachers should teach.

Teacher education programmes, both pre-service and in-service should be reoriented and aligned to inclusive education approaches in order to give teachers the pedagogical capacities necessary to make diversity work in the classroom and in line with reformed curriculum.

Training of all education professional, including members of the community, are essential to supporting an inclusive school. The creation of incentive renewing teachers social staus and improving their living conditions are necessary pre-conditions to professionalising the role of teachers. **For example**, increasing salaries, providing better living quarters, providing home leaves, increasing respect for their work, etc. Various training programmes are conducted in country. Some of them are as follows:

4.4.2.1. Seva-in-Action (SIA)

Seva-in-Action (SIA) is a training programme, which is established for teacher training. Seva-in-Action (SIA) has been developing human resources in the field of disability from the beginning of its establishment to fulfil the requirement of trained personnel to work in the school/community. Developing capacity of the education system to meet the needs of children and adults with disabilities is an important component of the organisation.

SIA organises training programmes for regular teachers, Inclusive Education Resource Teachers (IERTs) and Special teachers from SSA, and NGOs in the area of inclusive education and CBR, besides need based training programmes for CBR workers from NGOs, Aanganwadi workers, Village Rehabilitation Workers, parents and Volunteers in the field of disabilities. Trained Personnel of different levels from NGOs, State and Central Government, and also from other countries in CBR and Inclusive education through centralised and decentralized training programmes.

4.4.2.2. Teacher Training Course in IED

One Year Multi-category Teacher Training Course in IED (integrated education for disabled children) Recognised by the Government of Karnataka (1988 – 2005).

Course objectives are:

After the completion of the course the teacher should be able to:

- 1) Visualise special education for disabled children as a component of general education following the concept of children with special needs,
- 2) Describe the range of educational provision for children with special needs,
- 3) Identify children with special needs and assist such children to specify unique needs arising out of different disabilities,
- 4) Use curriculum and evaluation principles to adjust adapt curriculum, instructional materials and method to make them responsive to the needs of children with special needs,
- 5) Work with general teachers to make educational programs responsive to the needs of children with special needs,
- 6) Provide unique curriculum required for meeting special needs of children (for blind and deaf) in a cluster of primary schools,
- 7) Use special learning-teaching aids required for children with special needs and guide general teachers in the use of these aids,
- 8) Work with parents of children with special needs for supporting their unique needs,
- 9) Mobilise support from relevant agencies in the area to meet special needs of children,
- 10) Develop and maintain a resource room for a cluster of primary schools and ensure supply of direct services from the resource centre, and
- 11) Help general teachers to keep special aids and equipments in functional use.

4.4.2.3. Certificate Course in Community-Based Rehabilitation (1991-93)

It was a six weeks course for community-based rehabilitation workers. Its objective was to train personnel to work in CBR programmes. The personnel from Darussalam, Sierra Leanne, Sri Lanka and India have undergone this certificate course. An exclusive need based 15 days training programme was organised on CBR for a team of 9 persons from a CBR Project of Sri Lanka.

4.4.2.4. Learning Together-Inclusive Education Video Training Program (1999)

It is the 8 weeks (2 months) training programme, which was planned for **District Primary Education Programme (DPEP)** on video-based inclusive education training programme for selected 30 teachers (2 per clusters) from **Magadi Block**. This training programme was conducted in a phased manner to equip the teachers to become cross disability resource teachers for supporting other regular teachers at school level to implement **Inclusive Education**.

The training package with video as a resource material was given to the trainees to conduct training in Inclusive education. These resource materials are for in-service training of regular teachers and it can be used as pre-service training also. The ultimate goal is to ensure child oriented education strategy where every child is special whose needs should be met.

Training Objectives:

- 1) To provide classroom based models of good practice for teachers,
- 2) To support local trainers of teachers, and
- 3) To share information about Inclusive Education and Community Based Rehabilitation (CBR).

4.4.2.5. Multi-Category Teachers Training on Inclusive Education

Security Industry Authority (SIA) organised 10 days residential multi-category teachers training programme on Inclusive Education for newly recruited special teachers of Sarva Shiksha Abhiyana (SSA), Karnataka from 8th December 2010 - 25th March 2011 in 6 batches. There were 199 teachers from 22 Districts - Bangalore urban, Bangalore rural, Bijapur, Bagalkot, Bidar, Bellary, Dharwar, Haveri, Gadag, Dakshina Kannada, Chikmagalur, Chikkodi, Belgaum, Chamrajanagar, Chikballapur, Koppal, Madhugiri, Tumkur, Hassan, Mysore, Kodagu and Mandya participated in the 10 days training programme. Out of 199 Special teachers, more than 35 of them were blind and teachers hand book on **Inclusive Education** was given to the trainees. The handbook was also made in Braille for teachers who are blind.

Training Objectives:

- 1) To train Special Teachers in IE with a cross-disability approach in order to enable them to facilitate inclusion in regular schools, and
- 2) Raising awareness, developing sensitivity and handling children with special needs in mainstream schools.

4.4.2.6. Master Trainers of Shiksha Karmi Programme

Training of master trainers of Shiksha Karmi Programme in IED and CBR established in Rajasthan, India. This need based training programme was planned from 8th - 22nd July 1993 for the implementing personnel (master trainers), who train the Shiksha Karmies (SK) in Rajasthan. The aim of the SK programme, a project of the Department of Education, Government of Rajasthan is to revitalise and expand primary education in selected remote and economically backward villages of Rajasthan. The basic strategy devised by the project is of substitution of (invariably absent) primary school teachers by a team of two local educational workers (shiksha karmis). In order to integrate and extend these services for persons with disabilities, SIA was identified as an agency to train the Master Trainers (MT).

4.4.2.7. Training Programme on Inclusive Education (IE)

Training programme on Inclusive Education (IE) was established in 2009 - 2010. The residential training programme on IE was planned and conducted in 2 phases for the Chamarajanagar CBR Project of Mobility India. There were 40 tutors/ Community Education Facilitators along with their 4 Education Co-ordinators of Community Education Centres (CECs) received the training in Inclusive Education.

The first phase of training programme was organised from 5th June to 10th June 2009 at **Krushi Vijnana Kendra** (Agriculture Science Centre), Haradanahalli, Chamarajanagara.

The second phase of the training programme was organised from 26th October to 31st October 2009 at the same venue.

Training objectives are:

- 1) To train tutors to practically identify and assess the children with disabilities,
- 2) To train tutors to make IEP for the assessed children,
- 3) To train them to realise the significance of inclusive education in the context of education for all,
- 4) To provide them practical knowledge in unique curriculum or plus curriculum for children with disabilities,
- 5) To provide them an opportunity to understand Learning Process and Planning curriculum with adaptations, and
- 6) To provide them an opportunities for handling inclusive classes individually and teach one child with disability (totally blind child, hearing impaired child, intellectual disabled child and a child with cerebral palsy) based on IEP.

4.4.2.8. Short-Term and Decentralised Training Programmes

Seva-in-Action organised number of need-based short-term orientation/sensitisation/training programmes in the field of disability ranging from 1 - 3 days for school teachers, parents of persons with disabilities, Village Rehabilitation Workers, Volunteers, etc.

4.4.2.9. Knowledge Development and Capacity Building in Inclusive Education

Knowledge development and Capacity building in Inclusive Education was started in 1st week, April 2014. A week long training programme on IE was planned for NGO 'Berhan Lehetsanat' (previous name was Handicap National) in Ethiopia supported by DDP, UK.

The training was conducted on Inclusive Education for Knowledge Development and Capacity Building of Govt. School teachers, education officers, CBR workers, Supervisors & technicians from a team of Education & Livelihood for Girls & Women (ELGW) project implemented by BL (HN) in Hawassa, Ethiopia (West Africa).

Training Objectives

- 1) To understand the issues and needs of education of children with disabilities at classroom and community level in Hawassa Region,
- 2) To sensitise the trainees about the significance of inclusive education for children specially with disabilities,
- 3) To introduce new learning approaches for inclusive education practiced in India, and
- 4) To facilitate developing learning resources from locally available materials.

4.4.2.10. Able Disable All People Together (ADAPT)

Able Disabled All People Together (ADAPT), formerly known as **The Spastics Society of India**, is India's most noted non-profit and a Non-governmental organisation (NGO), working for Neuro-Muscular and Developmental Disabilities. It was started on 2nd October 1972 by **Mithu Alur**, to provide education and treatment services for the spastics (children suffering from cerebral palsy).

At present it has broadened its scope to include programs on teacher training, vocational training of young adults with Cerebral Palsy, Autism, Mental Retardation, Multiple Disabilities and Learning Disabilities. It also works in the field of advocacy and awareness and offers support to parents and other professionals. It has led to the formation of independent Spastic societies in 16 states in India. In 1999, it established the 'National Resource Centre for Inclusion (NRCI), in Mumbai, to include disabled children from special schools into normal schools. The Spastics Society of India has since changed names and is currently called ADAPT (Able Disable All People Together). Many of the state level spastics' societies under the aegis of The Spastics Society of India have also changed names since.

4.4.3. Organisation of Teacher Education

At present, In India there is two types of Teacher Education organisation:

- 1) Pre-service Teacher Education
- 2) In-Service teacher Education

4.4.3.1. Pre-service Teacher Education

In India there are currently running various organisations at different levels for pre-service teacher education. Major institutes are as follows:

- 1) **Pre-Primary Teacher Education Institutes**
 - i) Pre-Primary Teacher Education Training Institutions
 - ii) Nursery Teacher Education Diploma Department
- 2) **Primary Teacher Education Institutes**
 - i) Normal School
 - ii) District Institute of Education and Training – DIET
 - iii) Departments of Correspondence Course
- 3) **Secondary Teacher Education Institutes**
 - i) Colleges of Teacher Education
 - ii) Departments of Teacher Education
 - iii) Departments of Correspondence Course
 - iv) Central Institute of Education
 - v) State Institute of Education
 - vi) Regional Institution of Education
- 4) **Teacher Education Institutes of Special Students**
 - i) Training Institutes for Dumb and Deaf Children's Teacher
 - ii) Training Institutions for Blind Student's Teacher
- 5) **Training Institutes of Special Curriculum and Activities**
 - i) Colleges and Departments of Physical Education
 - ii) Colleges and Departments of Art Teaching
 - iii) Colleges and Departments of Language Teaching
 - iv) Colleges and Departments of Home-Science Teaching

4.4.3.2. In-Service Teacher Education

The teacher education which is provided to the teachers during their service period is called, in-service teacher education. It can be categorised mainly into two parts:

- 1) **Training of Serving Untrained Teachers:** In the beginning, the number of untrained teachers in the country at primary and secondary level schools was much more. So for providing training to them different types curriculum arranged, which are as follows:
 - i) Full-Time Teacher Education Curriculum
 - ii) Part-Time Teacher Education Curriculum
 - iii) Summer Time Teacher Education Curriculum
 - iv) Correspondence Curriculum
- 2) **Training of Serving Trained Teachers**
 - i) Seminars
 - ii) Refresher Courses
 - iii) Workshops
 - iv) Printed Material Distribution
 - v) Mass Media

4.4.3.3. Agencies of Teacher Education

There are various agencies of teacher education at different levels such as state level, national level and international level:

- 1) **Agencies of Teacher Education at State Level**
 - i) State Institute of Education (SIE)
 - ii) State Council of Educational Research and Training (SCERT)
 - iii) State Board of Teacher Education (SBTE)
 - iv) University Departments of Education (UDTE)
- 2) **Agencies of Teacher Education at National Level**
 - i) University Grant Commission (UGC)
 - ii) National University of Educational Planning and Administration (NUEPA)
 - iii) National Council of Teacher Education (NCTE)
 - iv) National Council of Educational Research and Training (NCERT)
- 3) **Agencies of Teacher Education at International Level:** United Nations Educational Scientific, Cultural Organisation (UNESCO).

4.4.4. Initiatives Taken for Improving the Condition of the Teachers

Various initiatives have been taken to improve the condition of the present teachers so that they can handle the school environment and can provide valuable education to the students.

- 1) **Capacity Building of Teachers:** For the effective implementation of inclusive education for all types of disabled children, general classroom teachers need training on understanding the educational and emotional needs of these children. It is ideal to teach about special needs children in the pre-service teacher preparation course itself. **The Curriculum Framework of the NCTE (1998)** indicates that the pre-service teacher preparation course should include content on special needs children. Teachers, thus trained, will be in a position to take care of the educational needs as well as of children, special needs in general classroom if appropriate disability specific assistive devices are made available. The work of general classroom teacher may be occasionally assisted by specialist teachers. The in-service courses may be offered to at least one teacher from each school to begin with and eventually cover all general classroom teachers in a block. This initial investment on capacity building would be vital for developing a strong base for inclusive education.
- 2) **Specialist Teacher Input:** Till the time, all general education teachers are capable of serving children with special needs; presence of specialist teacher for a cluster of schools is inevitable. If inclusion is to be successful, the special teacher and the general teacher should work together as a team. The role of the general teacher and the specialist teacher should be clearly defined. It should be a cooperative role and not one or the other. Inclusive education can best be promoted by pooling of skills of both the regular education teacher and special education teacher. Both of them should consider all children in the school as their own responsibility.

3) **Training of Specialist Teachers:** The Council has developed a number of training programmes in the field of special education at diploma, degree and Post Graduate diploma levels to meet the requirement of special teachers in the country. About 125 training institutions/universities are recognised by the RCI to offer these courses in various disability fields. The teachers so trained generally work in special schools and they can also be utilised as resource teachers in inclusive set up. Their services can also be availed in SSA as itinerant teachers.

A list of courses in Special Education developed and standardized by the RCI is as follows:

- i) Diploma in Teaching Young Hearing Impaired Children
- ii) Diploma in Early Childhood Special Education
- iii) Diploma in Special Education (HI)
- iv) Diploma in Special Education (VI)
- v) Diploma in Special Education (MR)
- vi) Diploma in Special Education (CP)
- vii) Diploma in Special Education (Deaf-Blind)
- viii) Diploma in Special Education (Autism Spectrum Disorders)
- ix) PG Diploma in Special Education (Multiple Disabilities)
- x) PG Diploma in Early Intervention
- xi) B.Ed. (Special Education)

Apart from the above, a number of training programmes have been developed by the council for providing support services complementing and supplementing special education. All these courses prepare professionals who could provide appropriate support services to children with diverse needs in regular schools. The needs of these children are diverse and, therefore, they need a host of disciplines to assess them. Also, training of parents of children with disabilities, para-teachers and Anganwadi workers is very important for providing professional and comprehensive educational services.

4.4.5. Rationale for an In-service Teacher Training Programme

Teacher preparation for inclusive education is generally achieved through teacher training, which is mainly done in pre-service and in-service training programmes. Pre-service training programmes for general and special education are offered by universities in India. However, few universities offer programmes which include the education of students with SEN. Even so, those programmes do not really prepare the new teachers to include students with SEN in the class.

Special education programmes are offered by few specialist training institutions. Such institutions focus on a specific need. For example, visual impairments, hearing and speech impairments or intellectual disabilities. The aim of such institutions is to prepare special teachers for special schools and not an 'inclusive teacher' for an 'inclusive classroom'. Therefore, neither the existing regular school pre-service training programmes nor the special education programmes are sufficient to prepare teachers to handle diversity in an inclusive

classroom. Consequently, the existing regular and special education teacher preparation programmes urgently require serious reform. However, it will be years before existing programmes are reformed and new, appropriately trained teachers enter service. Meanwhile, the teachers already in schools need to address SEN in their daily practice. This situation requires urgent attention to identify alternative stopgaps.

In-service teacher training programmes are provided by:

- 1) The government, and
- 2) Indigenous institutes or individuals.

Sarva Shiksha Abhiyan (SSA)

So far, the only governmental efforts to prepare regular school teachers for inclusive education has been under a nationwide programme called 'Education for All', better known as Sarva Shiksha Abhiyan (SSA). Under SSA, in-service training programmes for the teachers are provided in range from – 2 days, 3-5 days, or 4 -90 days. Most 1-5 day training courses merely cover questions of identification and management of SEN. Participation rates in 45 - 90 days training courses is extremely low. In addition, there is a serious lack of empirical research evaluating the effectiveness of these training programmes.

As a result of recent policy developments, private schools have opened their doors to students with SEN. These schools have been conducting in-service training for their teachers as a part of preparations to achieve this. Such in-service training programmes are generally customised according to the specific requirements of the particular school in terms of design, duration and content.

On the one hand, government policies intend to enforce the inclusion of students with SEN in regular schools, and on the other hand, not much is available to help teachers handle diversity in their classrooms. In light of this, we developed an in-service teacher training programme targeted at promoting positive attitudes among teachers and increasing their knowledge about SEN and about teaching methods.

4.5. ASSISTIVE AND ADAPTIVE TECHNOLOGIES IN INCLUSIVE SETUP

The educational needs of people with disabilities are vastly diverse. They have the same needs as everybody else to learn the basic skills of literacy and numeracy to the best of their ability as well as other abilities that are required in the society in which they live. For some students these needs are concerned with access to education and materials. A blind student cannot use printed materials and must have non-visual alternatives. For others, the needs may be educational in themselves. That is to say, e.g., that a cognitive impairment may inhibit the student's ability to learn, such that they need to be taught in a different manner from students without that impairment. Also the needs of some students will be

more fundamental and lower-level. For example, it may be that their education has to include areas that most children master at home before they ever commence formal education.

Educational and other cultural challenges may be difficult to address because of economic, social and political constraints and sometimes technology is the easiest way around some of those constraints. This is the case in special education where ICT can have a significant role to play and this can apply in many different environments regardless of their level of educational, technological and economic development.

Technology advances have changed the way people live. But not all people have benefitted equally, due to limited accessibility, social and economic barriers. Rapid development and application of computer-based technology, however, has created a sea change in available options for disabled students, ending the isolation and limited opportunities disabled students have long faced.

There are various types of technological advancement and innovations in field of special need education for children with disabilities is taking place immensely. Some useful technologies may include:

- 1) ICT, and
- 2) Adaptive and Assistive Technologies and Equipments, etc.

4.5.1. Adaptive and Assistive Technology (Devices)

Assistive technology is an umbrella term that includes assistive, adaptive, and rehabilitative devices for people with disabilities and also includes the process used in selecting, locating, and using them. Assistive technology promotes greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty in accomplishing, by providing enhancements to, or changing methods of interacting with, the technology needed to accomplish such tasks.

4.5.1.1. Meaning and Definitions of Adaptive Technology (Device)

The term adaptive technology is often used as the synonym for assistive technology; however, they are different terms.

Adaptive technologies refer to special versions of already existing technologies or tools, usually used by people with disabilities such as limitations to vision, hearing, and mobility.

In other words, adaptive technology is "any object or system that is specifically designed for the purpose of increasing or maintaining the capabilities of people with disabilities."

Adaptive technology is a subset of assistive technology. Adaptive technology often refers specifically to electronic and information technology access. Adaptive technology covers items that are specifically designed for persons with disabilities and would seldom be used by non-disabled persons.

4.5.1.2. Meaning and Definition of Assistive Technology (Device)

Assistive technology is a broader term encompassing any light-, mid-, or high-technology tool or device that helps people with disabilities perform a tasks with greater ease and/or independence.

Assistive technology devices are identified in the **IDEA 2004** as “Any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customised, that is used to increase, maintain, or improve the functional capabilities of children with disabilities.”

✓ **According to the United States' Assistive Technology Act of 1998, assistive technology** (also called adaptive technology) refers to any “product, device, or equipment, whether acquired commercially, modified or customised, that is used to maintain, increase, or improve the functional capabilities of individuals with disabilities.”

✓ In other words, “Assistive technology is any object or system that increases or maintains the capabilities of people with disabilities.”

Assistive devices are those devices which assist special needs learners in getting education. **For example**, a child with low vision may need spectacles, magnified glass or books with a bold print. Blind child may need Braille books, Braille slate and stylus, Braille sheets and abacus for learning mathematics. Similarly a hearing impaired child may need the hearing aids or amplifier. Orthopaedically handicapped learners may need artificial limb, special types of furniture of specific size or form. In this way, assistive devices are directly related to teaching-learning process.

The integrated relationship between assistive and adaptive technologies can also be explained through following **figure 4.2**:

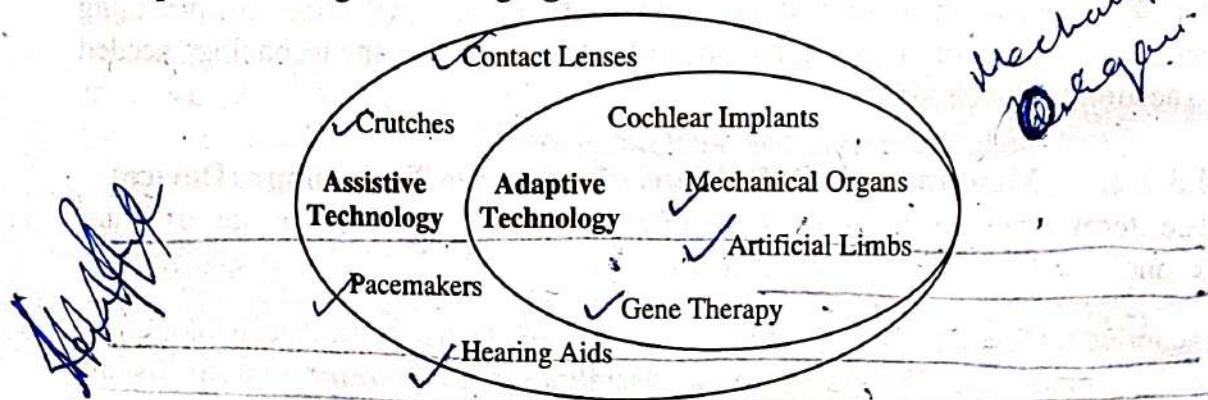


Figure 4.2

4.5.1.3. Objectives of Adaptive and Assistive Technology (Devices)

The important objectives of assistive technology in inclusive set-up are given below:

- 1) To enable special need learners to get adapted or adjusted to the environment of the inclusive set-up,
- 2) To enable them to approximate normal fluency, rate, or standards a level of accomplishment in the classroom teaching-learning which could not be achieved by any other means,

- 3) To provide access for participation in programmes or achieves which otherwise would be closed to them,
- 4) To increase endurance or ability to persevere and complete tasks that otherwise are difficult to be attempted on routine basis,
- 5) To enable them to concentrate and focus on learning tasks, rather than other objects or activities in the environment,
- 6) To help them in raising their communication activities and skills,
- 7) To provide greater access to information and environmental exposure,
- 8) To help them in making use of the assistive technology including computer technology for their adaptation, education and development, and
- 9) To support social interactions with peers, schoolmates, teachers and other school personnel.

4.5.1.4. Difference between Assistive Technology and Adaptive Technology

Assistive technology is an umbrella term that is often confused with adaptive technology. Many people use the term adaptive technology as a synonym for assistive technology. In fact, the two types of technologies are significantly different in following ways:

Table 4.1: Difference between Assistive Technology and Adaptive Technology

Basis of Differences	Assistive Technology	Adaptive Technology
Meaning	Assistive technology is defined as being any item, piece of equipment, or product system used to increase, maintain, or improve functional capacities of individuals with disabilities.	Adaptive technology, on the other hand, is defined as any object or system that is specifically designed for the purpose of increasing or maintaining the capabilities of people with disabilities.
Scope	Assistive technology is a broader term.	Adaptive technology is a subset of assistive technology.
Importance	Assistive technologies are useful for disabled in many ways.	Adaptive technology would seldom be used by non-disabled people.
Objective	To enable special need learners to get adjusted in the environment of the inclusive set-up.	To help them in making use of the adaptive technology.

4.5.1.5. Types of Adaptive and Assistive Technology (Devices)

Assistive technologies (devices) are available in a variety of categories to address functional capabilities of students with disabilities. These categories include but are not limited to:

- 1) **Academic and Learning Aids:** Electronic and non-electronic aids such as calculators, spell checkers, portable word processors, and computer-based software solutions, that are used by students who has difficulty in achieving the educational curriculum.

- 2) **Aids for Daily Living:** Self-help aids for use in activities such as eating, bathing, cooking, dressing, and home maintenance.
- 3) **Assistive Listening Devices and Environmental Aids:** Electronic and non-electronic aids such as amplification devices closed captioning systems, and environmental alert systems that assist students who are hard of hearing or deaf with accessing information that is typically presented through an auditory modality.
- 4) **Augmentative Communication:** Electronic and non-electronic devices and software solutions that provide a means for expressive and receptive communication for students with limited speech and language.
- 5) **Computer Access and Instruction:** Input and output devices, alternative access aids, modified or alternative keyboards, switches, special softwares, and other devices and software solutions that enable students with a disabilities to use the classroom computer.
- 6) **Environmental Control:** Electronic and non-electronic aids such as switches, environmental control units, and adapted appliances that are used by students with physical disabilities to increase their independence across all areas of the curriculum.
- 7) **Mobility Aids:** Electronic and non-electronic aids such as wheelchairs (manual and electronic), walkers, scooters that are used to increase personal mobility.
- 8) **Pre-Vocational and Vocational Aids:** Electronic and non-electronic aids such as picture-based task analysis sheets, adapted knobs, and adapted timers and watches that are used to assist students in completing pre-vocational and vocational tasks.
- 9) **Recreation and Leisure Aids:** Electronic and non-electronic aids such as adapted books, switch adapted toys, and leisure computer-based software applications that are used by students with disabilities to increase participation and independence in recreation and leisure activities.
- 10) **Seating and Positioning:** Adaptive seating systems and positioning devices that provide students with optimal positioning to enhance participation and access to the curriculum.
- 11) **Visual Aids:** Electronic and non-electronic aids such as magnifiers, talking calculators, Braille writers, adapted tape players, screen reading software applications for the computer, and Braille note-taking devices that assist students with visual impairments or blindness in accessing and producing information that is typically present in a visual (print) modality.
- 12) **Education:** Audio books or Braille writing tools for the blind come under this category, along with resources that allow people to get additional vocational training.
- 13) **Orthotic or Prosthetic Equipment:** A device that compensates for a missing or disabled body part. This could range from orthopaedic shoe inserts for someone who has fallen arches to an artificial arm for someone whose limb has been amputated.

14) **Recreational Assistance:** New methods and tools to enable people who have disabilities to enjoy a wide range of fun activities. For example, swimming lessons provided by recreational therapists or specially equipped skis for seniors who have lost a limb as a result of accident or illness.

15) **Seating Aids:** Any modifications to regular chairs, wheelchairs, or motor scooters that help a person stay upright or get up and down unaided or that help to reduce pressure on the skin. This could be something as simple as an extra pillow or as complex as a motorised seat.

16) **Therapy:** Equipment or processes that help someone recover as much as possible from an illness or injury. Therapy might involve a combination of services and technology, such as having a physical therapist use a special massage unit to restore a wider range of motion to stiff muscles.

17) **Transportation Assistance:** Devices for elderly individuals that make it easier for them to get into and out of their cars or trucks and drive more safely, such as adjustable mirrors, seats, and steering wheels. Services that help the elder individuals to maintain and register their vehicles, such as a drive-up window at the department of motor vehicles, would also fall into this category.

18) **iPads and Tablets:** Smartphones and tablet computers like the iPad, Kindle Fire, and Samsung Galaxy have opened up a whole new world for many people with disabilities or special health-care needs. There are now more than 3,00,000 apps for the iPad alone which cover education, life skills, learning sign language, converting sound to writing, converting writing to sound, and much more.

The progress of technology has meant that blind and visually impaired persons can have access to practically everything through spoken messages, natural or synthetic, through tactile markings and readings, through enlarged or enlargable characters, through optical character recognition systems etc. Just as older people may have many different types of disabilities, many different categories of assistive devices and services are available to help overcome those disabilities.

4.5.1.6. Services Offered by Assistive Technology

As defined in IDEA, an assistive technology service is "any service that directly assists a child with a disability in the selection, acquisition, and use of an assistive technology device." The term includes:

- 7) The evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment,
- 8) Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities,
- 9) Selecting, designing, fitting, customising, adapting, applying, retaining, repairing, or replacing assistive technology devices,
- 10) Coordinating and use other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programmes,

- 11) Training or technical assistance for a child with a disability or, if appropriate, that child's family, and
- 12) Training or technical assistance for professionals including individuals or rehabilitation services, employers, or other individuals who provide services to employ, or are otherwise substantially involved in the major life functions of children with disabilities.

4.5.2. Adaptive Equipment and Other Technologies

Assistive devices and technologies are those whose primary purpose is to maintain or improve an individual's functioning and independence to facilitate participation and to enhance overall well-being. They can also help prevent impairments and secondary health conditions.

Adaptive equipment are devices that are used to assist with completing activities of daily living. Examples of adaptive equipment or assistive technology are wheelchairs, prostheses, hearings aids, visual aids, and specialised computer software and hardware that increase mobility, hearing, vision, or communication capacities.

4.5.2.1. Types of Adaptive Equipments

There are different types of adaptive equipments and technologies for disabled children:

- 1) **Mobility Adaptive Equipment:** Mobility adaptive equipments are used in cases where a disease or accident leaves an individual's motor functions hindered or unusable. If an individual suffers from restricted motor functions, there are equipment and technology that can assist in regaining some or all mobility.

Types of Mobility Adaptive Equipment

Mobility adaptive equipment are:

- i) **Wheelchair:** A manual or motorised wheelchair is a chair with attached wheels that allows a person who cannot walk, due to illness, injury, or disability to move around.
- ii) **Crutches:** Crutches are devices used to transfer the bodies load from the lower body to the upper body. Crutches are used when a person's lower body is not completely immobilised but impaired.
- iii) **Prosthetic Devices:** Prosthetic devices are artificial devices used to replace a missing body part caused from either an illness, accident, or a birth defect.
- iv) **Orthotic Devices:** Orthotic devices, or orthoses are devices used to align, brace, or correct deformities. Orthoses also help to improve the movement of ones joint, spine, or limb.

- 2) **Sensory Adaptive Equipment:** Sensory/Neurological adaptive equipments are used in cases where an individual lacks proper stimulation of a sense. For example, individuals, who are either blind, mute, deaf or a combination of them.

Types of Sensory Adaptive Equipment

Sensory adaptive equipment are:

- i) **Hearing Aids:** Hearing aids are devices used by partially deaf individual to regain a portion of hearing by amplifying sound.
- ii) **Braille:** Braille is a system or a raised bumps that allows blind individuals to read text with their fingers. Braille is a code of language and not a language in itself.
- iii) **Assistive Listening Devices (ADL):** Assistive listening devices (ADL) are devices used to amplify sounds an individual wants to hear, especially in areas with lots of background noise. ADLs can be used with hearing aids and cochlear implants to improve the individuals, hearing.
- iv) **Argumentative and Alternative Communication (AAC) Devices:** Argumentative and Alternative Communication (AAC) devices are used to help individuals with communication disorder to express themselves to others. The devices can carry from picture boards to computer assisted speech.
- v) **Alerting Devices:** Alerting Devices are assistive device that connect with door bells, telephones, and other alarming device. These devices add a specific alarm based on one's disability. **For example**, a deaf individual can have a door bell that blinks a light instead of a noise to indicate someone is at the door.

3) **Blind or Visually Impaired Adaptive Equipment:** There are essentially five methods of output that can render computers and printed materials accessible for individuals who are blind or visually impaired – Screen reader, Braille printer, reading device, electronic Braille display, and text magnification.

- i) **Screen Readers:** The Screen Reader converts computer output and text entering into major spoken languages. The person with visual impairment can access computers with the help of speech output to use any word processor application to write letters, school assignments or any other writing materials. The exploration of the Internet and sending electronic-mail (E-mail) are possible for a blind individual by the use of a speech synthesiser.
- ii) **Braille Embossers:** A Braille Embosser is a hardware device for printing a hard copy of a text document in Braille. A Braille translation software program is required to translate the text from the computer into Braille. Most Braille translation software programs can translate material into several grades or versions of Braille. Computerised Braille embossers definitely have great advantage over the manual Brailing method.
- iii) **Reading Devices/Scanners:** The reading devices for the blind allow access to hard copy of ink printed materials into the computer, where it becomes accessible. Once the text has scanned within a second, the user can start listen to the text in a clear voice. In the meantime, the user can save the scanned material for later use. Indeed, with this type of adaptive technology, it no longer presents a barrier to persons who have difficulty to read ink prints.

- iv) **Braille Display:** There are also devices that are able to convert ordinary print or the symbols on a computer screen into an exact tactile replica. Braille Display is a vital communication device exceptionally for Deaf and Blind. There are also read-write systems, mostly doubling as word processors and computer terminals. Braille text is entered and manipulated by means of a simple six-dot keyboard and a few additional keys or switches. Text is displayed on a small tactile screen. To produce hard copy, the device is interfaced with ordinary standard printers or with Braille embossers.
- v) **Magnification:** For persons with partial sight there is an ever increasing range of useful magnifying lenses. By means of closed circuit television devices, print can be enlarged and brought into focus and small objects observed closely.

4.5.2.2. Assistive and Adaptive Technologies, Equipments for Varying Types of Disabled Students in the Inclusive Set-up

There are different types of technologies and equipments are used in an inclusive set-up:

- 1) **Assistive Technology for Orthopedically or Mobility Impaired:** Orthopedically or mobility impaired students need a wide variety of assistive technologies enabling them to adapt and learn in the inclusive classroom set-up. With their limited physical capacities and difficulty in movements they essentially need some ways and means of assisting them in a proper way for coping with such deficiencies or deficits. Surely and certainly the assistive technology options should match here with the specific needs associated with the nature of their physical capacities and movability by:
 - i) Helping the orthopedically impaired by equipping them with artificial limbs,
 - ii) Equipping the orthopedically impaired with mobility devices,
 - iii) Helping the orthopedically impaired in providing written responses,
 - iv) Helping orthopedically impaired in attending reading tasks,
 - v) Carrying out essential adaptation in terms of material facilities and environmental modifications, and
 - vi) Helping orthopedically impaired in accessing computers, and mobile technology.
- 2) **Assistive Technology for Visually Impaired:** Visually impaired students while receiving instructions and going through the learning experiences in an inclusive classroom set-up may be helped by a variety of assistive technology and means in the manner given below:
 - i) To helps in visual access,
 - ii) To helps in auditory access,
 - iii) To helps in the tactile access,
 - iv) To helps in orientation and mobility, and
 - v) To helps in instructional output.

3) **Assistive Technology for Hearing Impaired:** Students with hearing impairments benefit from accommodations that may include the use of interpreters, preferential seating, and visual cues. Many of these students also use assistive listening devices such as hearing aids and personal FM systems. Some students who are deaf are discovering this technology helpful in classroom settings. Assistive or adaptive technology devices and means employed for assisting and helping the hearing impaired students in one or the other ways in an inclusive classroom set-up which may include the following:

- Preferential Setting:** Here the hearing impaired students are made to sit as near as possible to the teacher/instructor. It benefits the students who suffer from the mild or moderate hearing loss.
- Receiving Help through the Peers:** Hearing impaired students may be helped by the peers sitting next to them in the class or after the class by the tutor or peers in taking and sharing class notes, attending to the speakers, and helping in other oral communication activities.
- Use of Hearing/Listening Aids:** Hearing impaired students may be made to bear and use the modern electronic hearing aids for picking up sound, magnifying its energy and delivering this louder sound to their ear and brain.
- Cochlear Implants:** In case when the child is unable to be helped much through hearing aids, then the next alternative lies in implanting an electronic device in his cochlear through surgery. It is helpful in stimulating those hearing nerves in the cochlear that are not impaired resulting into the hearing of the sound on the part of the child. This implantation functions in the same way as implantation of a pace maker in the heart.
- Providing Captions for the Video Presentation:** Since the oral communication/dialogues, etc., of a telecast programme or video presentation are not accessible by the hearing impaired, the due provision can be made for its accessibility by captioning the subtitle of the communicated feelings and ideas for the desired education and instructional activities of the hearing impaired.
- Using Text Message for Communication:** For the desired communication, the hearing impaired can make use of mobile phone for sending and receiving text messages to their peers as well as teachers/instructors regarding the classroom instructions, assignments or project activities.
- Using Computer Technology:** Use of computer technology can offer a lot of assistance to the hearing impaired for their proper communication, education, and adjustment in the inclusive classroom set-up.

4) **Assistive Technology for Children with Speech Disability or Communication Disorder:** The children suffering from speech disabilities or communication disorders may be helped through the adoption of Augmentative and Alternative Communication (AAC) technology.

Augmentative and Alternative Communication (AAC) is an umbrella term that encompasses methods of communication for those with impairments or restrictions on the production or comprehension of spoken or written language.

- 5) **Assistive Technology for Learning Disabled:** Learning disabilities students with learning disabilities may be strong candidates for assistive technology support. Some of these learning disabilities include development speech and language disorders (articulation, expressive language and/or receptive language disorders) as well as academic skills disorders (reading, writing and/or arithmetic disorders). The assistive or adaptive technological measures like below may prove quite fruitful in the direction of:
 - i) Uses of audio recording devices,
 - ii) Uses of video or power point presentations for the instruction, and
 - iii) Uses of Computer Assisted Instruction (CAI).
- 6) **Assistive Technology for Students Suffering from Autism Disorders:** The characteristics of students with Autism Disorders (AD) vary considerably. Students with AD process and react to information and other stimuli in unique ways. Some students with AD enhance their communication abilities through Augmentative and Alternative Communication (AAC) support. The use of computers, specialised software, and other technologies may provide organisational support and improve levels of focus.
- 7) **Assistive Devices for Intellectually Impaired Learners and Learners with Cerebral Palsy:** Intellectually impaired children may be slow learners or mentally deficient. Intellectually impaired children have low intelligence but their development is not according to their mental level. Such learners differ with regard to learning emotions, adjustment and physical development as compared to normal children.

In this way necessary efforts can be made for providing help or assistance to the disabled or differently-abled students in the inclusive classroom set-up along with the other non-disabled peers for their adequate adaptation; education and development by resorting to the desired assistive technologies and means meant for this purpose.

4.5.2.3. Importance of Assistive and Adaptive Technology

Adaptive technology is a broad term often used to describe both the products and services for people with special needs. It enhances the vocation, recreation, education, and independence of the user. The vast proportion of employment, education and daily living activities require access to electronic information. Technology can be in an innumerable of instances, assist individuals who are blind or visually impaired to become active participants in their societies.

- 1) **Provide Equality Between Visually Impaired Individuals:** Adaptive technology can provide equality between visually impaired individuals and their sighted peers within the emerging information society. With the aid of the appropriate technological devices, visually impaired persons can

independently access, process, store and transmit the same information handled by sighted people. Both use computers to manipulate this information, the only difference lies in the form in which the information is displayed.

- 2) **Reduce the Costs of Care:** Assistive technology can also reduce the costs of care for the elderly and their families. Although families may need to make monthly payments for some pieces of equipment, for many, this cost is much less than the cost of home-health or nursing-home care.
- 3) **Meet the Needs of Users:** Assistive technologies may meet the needs of users in different ways. They may allow people to do something that they could not do before (e.g., use a computer or drive a car) or to do it more safely, more easily, or more independently.

The ability to perform a discrete task, such as using an appliance, driving a car, or putting on socks, may translate directly or indirectly into better general functioning in daily life (e.g., getting dressed and preparing meals); more independence (e.g., traveling outside the home); or improved abilities to perform social roles, such as attending school, working, or taking care of one's children. These outcomes may, in turn, translate into a better quality of life. They may also reduce demands on family or paid caregivers.

Benefits of using assistive devices include:

- 1) Improved educational performance and staying on track with school programme,
- 2) Ability to clearly express feelings, thoughts and emotions,
- 3) Increased vocabulary, comprehension and reading level,
- 4) Devices can be mounted on mobility aids to meet child's needs throughout maturity,
- 5) Parents no longer have to guess their child's wants or needs, and
- 6) Communication skills will enable employment and independent living.

In general, the usefulness of an assistive technology will depend on interactions involving several factors. These factors include:

- 1) Characteristics of the individual user, such as a person's particular impairment, income, education level, and adherence to therapy regimens, as well as his or her preferences and goals;
- 2) Characteristics of the technology itself, including ease of use (with respect to both physical and cognitive demands), ease of maintenance, need for training in use, reliability, safety, durability, portability, cost, and obtrusiveness; and
- 3) Environmental circumstances, including characteristics of an individual's home or workplace, family relationships, social attitudes, the knowledge and attentiveness of health care professionals, and supportive public policies.

4.5.3. Information and Communication Technology (ICT)

Information and communication technologies (ICTs) which include radio and television, as well as newer digital technologies such as computers and the Internet have been proven as potentially powerful tools for educational change and reform. When used appropriately, different ICTs can help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality by helping in making teaching and learning into an active process connected to real life.

4.5.3.1. Meaning and Definition of Information and Communication Technology (ICT)

ICT stand for information and communication technology. Information and communications technology (ICT) refers to all the technology used to handle telecommunications, broadcast media, intelligent building management systems, audio-visual processing and transmission systems, and network-based control and monitoring functions.

According to Blurton (2002), ICT is defined as “A diverse set of technological tools and resources used to communicate, create, disseminate store, and manage information.” These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony.

According to Daintith, John, ICT can be defined as, “A branch of engineering dealing with the use of computers and telecommunications equipment to store, retrieve, transmit and manipulate data.”

According to Ifueko Omoigui Okauru, “ICT is the digital processing and utilisation of information by the use of electronic computers. It comprises the storage, retrieval, conversion and transmission of information.”

ICT supports activities involving information. Such activities include gathering, processing, storing and presenting data. Increasingly these activities also involve collaboration and communication.

4.5.3.2. Characteristics of ICT

Chief characteristics of ICT are as follows:

1) **Combination of Hardware and Software Technology:** ICT in education is any hardware and software technology that contribute in the educational information processing. In the context of present era, ICT mainly comprises of Computer technology with its hardware, like, Personal computer machine, infrastructure required for setting up Internet facility and also software like, CD ROM including various programme packages, e-learning strategies, etc.

2) **Information Technology:** ICT in education is any Information Technology that focuses on the acquisition, storage, manipulation, management, transmission or reception of data required for the educational purpose. For example, the information about students' records, their admissions, updates of their auricular and co-curricular activities.

3) **Exchange of Information:** ICT in education is any technology that deals with the exchange of information or in other words communication in the teaching learning process. Uses of electronic learning technology like – teleconferencing, power point presentations, CD ROM are communication technology which is the part of ICT.

4) **Applied in the Educational Process:** ICT in education is any educational technology that is applied in the educational process. It encompasses Hardware approach like use of machines and materials, Software approach like use of methodologies and strategies of teaching learning and systems approach that uses the management technology that deals with the systematic organisation of the hardware and the software. Different software packages for the use in different department of education. **For example**, Library software, administration software, software related to managing the entire teaching learning process.

5) **Support Material:** ICT in education is the support material in the hands of the human resource involved in the educational process in order to enhance the quality of education.

6) **Application of Science:** ICT in education comprises of the application of science of On-line, offline learning with the help of the computer technology.

4.5.3.3. Objectives of ICT in Education

Following are the objectives of ICT in education:

- 1) To implement the principle of life-long learning,
- 2) To increase a variety of educational services and method,
- 3) To promote equal opportunities to obtain education and information,
- 4) To develop a system of collecting and disseminating educational information,
- 5) To promote technology literacy of all citizens, especially for students,
- 6) To develop distance education with national contents,
- 7) To promote the culture of learning at school (development of learning skills, expansion of optional education, open source of education, etc.,) and
- 8) To support schools in sharing experience and information with others.

4.5.3.4. Role of Information and Communication Technology (ICT) in Inclusive Education

ICT for special educational needs assists the different types of disabilities with assistive technology. The main gap is within development of learning environments and systems which facilitate inclusion of persons with different types of disabilities. Teachers are not aware of e-learning environments and their potentials for individualised instruction, exploratory environments, collaborative learning and facilitating social skills, individualised study plans, classroom management for accommodating students with disabilities in the inclusive classroom. Research findings show that the use of online communication by young people has become a most common activity, and that the internet and virtual environments have been highly integrated in the young people's lives, where young people with special needs are vulnerable and marginalised. Learning

environments and systems which prepare young people with special needs for participation in information society foster implementation of the developing ICT competences based on equal opportunities.

ICT benefits users in various ways. This includes:

1) **General Benefits**

- i) Enables greater learner autonomy,
- ii) Unlocks hidden potential for those with communication difficulties,
- iii) Enables students to demonstrate achievement in ways which might not be possible with traditional methods, and
- iv) Enables tasks to be tailored to suit individual skills and abilities.

2) **Benefits for Students**

- i) Computers can improve independent access for students to education,
- ii) Students with special educational needs are able to accomplish tasks working at their own pace,
- iii) Visually impaired students using the internet can access information alongside their sighted peers,
- iv) Students with profound and multiple learning difficulties can communicate more easily,
- v) Students using voice communication aids gain confidence and social credibility at school and in their communities, and
- vi) Increased ICT confidence amongst students motivates them to use the internet at home for schoolwork and leisure interests.

3) **Benefits for Teachers and Non-Teaching Staff**

- i) Reduces isolation for teachers working in special educational needs by enabling them to communicate electronically with colleagues,
- ii) Supports reflection on professional practice via online communication.
- iii) Improved skills for staff and a greater understanding of access technology used by students,
- iv) Enhances professional development and the effectiveness of the use of ICT with students through collaboration with peers, and
- v) Materials already in electronic form, e.g., from the internet are more easily adapted into accessible resources such as large print or Braille.

4) **Benefits for Parents and Carers**

- i) Use of voice communication aids encourages parents and carers to have higher expectations of children's sociability and potential level of participation.
- ii) Help needs to be available for parents and carers to gain access to equipment and training, so they can support students in making better use of technology.
- iii) Better understanding of the characteristics of interaction between children using Augmentative and Alternative Communication (AAC) aids and their conversational partners is necessary to ensure turn taking in conversations and opportunities to respond.

4.5.3.5. Role and Functions of ICT

ICT plays very crucial role in education sector. The roles played by ICT are described below:

- 1) **To Stimulate Interest and Motivation in Learning Process:** To change the traditional way of teaching implementing the use of multimedia technologies such as video, images, animation and visual effects, etc. New opportunities for authentic tasks and materials. To develop and practice learners skills (reading, writing, listening and speaking). Teaching-learning interaction between teachers and students.
- 2) **Opportunities to Access:** ICT provides opportunities to access an abundance of information using multiple information resources and viewing information from multiple perspectives, thus fostering the authenticity of learning environments.
- 3) **Makes Complexity Easier:** ICT may also make complex processes easier to understand through simulations that again contribute to authentic learning environments. Thus, ICT may function as a facilitator of active learning and higher order thinking.
- 4) **Change and Modernise Educational Systems:** ICTs have an important role to play in changing and modernising educational systems and ways of learning. The integration of information and communication technologies can help revitalize teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas.
- 5) **Helpful for Teachers:** Teachers generate meaningful and engaging learning experiences for their students, strategically using ICT to enhance learning. Students enjoy learning and the independent enquiry which innovative and appropriate use of ICT. They begin to acquire the important skills which they will need in their future lives.
- 6) **Helpful in Achievement:** ICT through curriculum integration has a significant and positive impact on student achievement, especially in terms of “Knowledge-Comprehension”, “Practical skill” and “Presentation skill” in subject areas such as mathematics, science, and social study.

Role of ICT in Primary Education

Information and Communication Technology (ICT) is important in primary education because it enables kids to search for the information they need and to organise what they have found. As children progress through the school system, they become increasingly responsible for their own learning.

Many believe that ICT needs to be better integrated into curriculums so all schools produce computer literate, independent learners.

- 1) **Benefits:** ICT is a global phenomenon, and children who are computer literate at an early stage of their lives might deal better with the modern world. A sound knowledge of ICT makes it much easier for children to find and organise information. Although the ICT curriculum was sometimes poorly balanced, its use contributed to children doing better in some subject areas. The study also found that the primary school children spent as much time on computers as the curriculum allowed.

2) **Effects:** Primary school children who do well in ICT spend a lot of time going over the same ground rather than progressing. The Ofsted study (2009) found that in more than half the primary schools they visited, children did well in ICT. However, earlier work found that children did better in schools where the computing resources were good, but had lower levels of achievement when resources were fewer. This was due to social and economic factors pertaining to certain areas.

3) **Potential:** ICT is important in primary schools because it can help kids to achieve better results in other subjects and to find what they need and use information in particular ways. It is important that children become familiar with ICT at an early age, because they will need those skills for the remainder of their education and in adult life.

Role of ICT in Higher Education

- 1) To increase variety of educational services and medium,
- 2) To promote equal opportunities to obtain education and information,
- 3) To develop a system of collecting and disseminating educational information, and
- 4) To promote technology literacy.

Functions of ICT

The following functions of the ICT in education are described by Moonen and Kommers:

- 1) **ICT as Object:** It refers to learning about ICT. It mostly organised in a specific course, that what is being learned depends on the type of education and the level of the students. Education prepares students for the use of ICT in education, future occupation and social life.
- 2) **ICT as an Assisting Tool:** ICT is used as an assisting tool, for example, while making assignments, collecting data and documentation, communicating and conducting research. Typically, ICT is used independently from the subject matter.
- 3) **ICT as a Medium for Teaching and Learning:** This refers to ICT as a tool for teaching and learning itself, the medium through which teachers can teach and learners can learn. It appears in many different forms, such as drill and practice exercises, in simulations and educational networks.
- 4) **ICT as a Tool for Organisation and Management in Schools:** Education policymakers and planners must first of all be clear about what educational outcomes (which is discussed above) are being targeted. These broad goals should guide the choice of technologies to be used and their modalities of use.

4.5.3.6. Advantages of ICT

There are various advantages of student using ICT in education:

- 1) **Act as a Motivating Tool:** The Internet can act as a motivating tool for many students. Young people are very captivated with technology. Teachers must capitalize on this interest, excitement, and enthusiasm about the Internet for

the purpose of enhancing learning. For already enthusiastic learners, the Internet allows you to provide them with additional learning activities not readily available in the classroom.

- 2) **Provide Fast Communication:** The Internet promotes fast communication across geographical barriers. Students can join collaborative projects that involve students from different states, countries or continents. This type of learning experience was not possible before the ICT. This is a unique learning experience very essential for each of our students, as the world is becoming one big community.
- 3) **Facilitate Cooperative Learning:** It facilitates cooperative learning, encourages dialogue, and creates a more engaging classroom.
- 4) **Locating Research Materials:** Apart from communication, research is what takes many people to the use of ICT. There are many more resources on the Internet than the school library can provide. We can encourage students to take advantage of this wealth.
- 5) **Acquiring Varied Writing Skills:** If students are required to publish their work on the Internet, they have to develop hypertext skills. These skills help students gain experience in non-sequential writings. Moreover, and since the Internet is open to all with access, students publishing their work on the Internet are forced to be mindful of their language and to write to non-expert audience.
- 6) **Individualisation of Learning:** This means that people learn as individuals and not as a homogenous group. ICTs allow each individual to relate to the medium and its content.
- 7) **Interactivity:** Interactivity is the way in which a person can relate to the content, go forward and backward in the content, start at any point depending upon prior knowledge instead of always in a sequential way.
- 8) **Low per Unit Cost:** Per person, ICTs reduce the cost of education from very high to very low.
- 9) **Distance and Climate Insensitive:** It does not matter where you are, or how the weather is, you can still access and learn from ICTs.
- 10) **Serve Multiple Teaching Functions and Diverse Audiences:** ICTs, especially the computer and internet based can be useful in drill and practice; to help diagnose and solve problems, for accessing information and knowledge about various related themes.
- 11) **High Speed Delivery:** There is instant delivery of information.
- 12) **Uniform Quality:** If content is well produced and is of good quality, the same quality can be delivered to the rich and the poor, the urban and the rural equally and at the same low cost.

4.5.3.7. **Disadvantages of ICT**

Disadvantages of ICT are:

- 1) **Costly:** More and more resources are being put into ICT in schools such as the cost of laptops, wireless broadband, projectors etc. this contribute a large percentage of the school's budget.

- 2) **Tend toward Centralised Uniform Content in Economies of Scale:** The larger the numbers, the lower the cost. This means that sometimes we try to reach large numbers so we make content common, not taking into account individual differences.
- 3) **Problems of Reach, Access, and Remain:** Not everyone has equal access; so not everyone benefits equally from the use of ICTs.
- 4) **Tend to Create New Class of Knowledge Rich/Knowledge Poor:** Those who have access and knowledge through the media become richer and those who do not become poorer, widening the “knowledge or digital gap” between rich and poor.
- 5) **Hard to Assess Impact:** Learning from ICT delivered content is difficult to assess since such learning is of a multidimensional and long-term kind, rather than from immediate learning assessment as in a classroom test.
- 6) **Officers, Trainers Need Reorientation and Retraining:** Just as people learn to use ICTs, trainers and officers also need training – something they sometimes resent.
- 7) **Call for Attitudinal Change to Understanding of Teaching and Learning:** These are different media and have a different way of teaching from what we are accustomed to therefore, they need different ways of understanding what teaching and learning is all about.

4.6. EXERCISE

4.6.1. Very Short Answer Type Questions

- 1) What is peer tutoring?
- 2) What is adaptive technology?
- 3) What is assistive technology?
- 4) Define ICT.
- 5) Define cooperative learning.

4.6.2. Short Answer Type Questions

- 1) Describe the role of ICT for disabled children.
- 2) What are the cooperative learning strategies in the classroom?
- 3) Discuss the objectives of peer tutoring.
- 4) What is social learning?
- 5) Define buddy system.

4.6.3. Long Answer Type Questions

- 1) What are the technological advancement and its applications for disabled children?
- 2) What are various pedagogical strategies to respond to individual needs of students? Describe any one of them.
- 3) What are adaptive and assistive devices for different disabled children?
- 4) What is multisensory and reflective teaching?
- 5) Discuss the concept of support services and partnership in teaching.