

CHAPTER 1

INTRODUCTION

1.1 Introduction

In the Indian education system, nowadays inclusive education is a significant component. Many initiatives have been undertaken to improve the overall development of differently abled students in special schools in India. Now this is the time to give importance for individuals with disabilities or with special needs to learn together with normal students in the schools. This concept has come from the idea of social justice which demands that all individuals have human rights without any discrimination. Differently abled children have the right to education as they are also the future responsible citizens of this country.

“Disability” is complex and multi-dimensional. International Classification of Functioning, Disability and Health (ICF) of the World Health Organization (WHO, 2011) defines it as an “umbrella term for impairments, activity limitations and participation restrictions”. According to this definition, disability results from the negative interaction between an individual with a health condition and that individual's contextual factors (EPRS, 2015).

“Disability is an evolving concept...disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others” (Preamble, United Nations Convention on the Rights of Persons with Disabilities).

The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 has come into enforcement on February 7, 1996. This law is an important landmark and is a significant step in the direction to ensure equal opportunities for people with disabilities and their full participation in the nation building. The Act provides for both preventive and promotional aspects of rehabilitation like education, employment and vocational training, reservation, research and manpower development, creation of barrier-free environment, rehabilitation of persons with disability, unemployment and establishment of homes for persons with severe disability, etc.

Children with disabilities are not a homogenous group. Some children are born with genetic conditions or impairments, while others acquire them in childhood.

Children can be very diverse in relation to their functional difficulties, the barriers they face, the support they need, the requirements they may have for tailored interventions, and the intersecting factors that both influence their identities and interact with different environments. Not all disabilities are ‘visible’, and differences in functioning can be subtle. Individual children with a similar impairment or condition will have very different experiences across different life domains, depending on whether they have access to the Assistive Technology (AT) they need, the type and level of support they receive, and the inclusiveness of the family, community and society in which they live (UNICEF Disability Inclusion Policy and Strategy, 2022).

UNICEF strengthens its investments, partnerships, product availability and technical assistance to help governments progressively realize universal access to AT for persons, particularly children, with disabilities. It increases support for the development and greater availability of affordable, quality and appropriate products that meet the diverse needs of children with disabilities in diverse contexts.

Education for differently abled students is a major concern of the present system. Central and State Government organizations are making efforts to overcome it but it still remains as a big challenge in the Indian education system. The regular schools with the inclusive education concept are the most effective measures for building an inclusive society, overcoming discriminatory attitudes, creating harmonious communities and moreover they provide an effective education to the majority of children with special needs and improve the efficiency and the effectiveness of the entire education system (UNESCO, 2009).

National Policy on Education (NPE) 1986 states that children with mild disabilities should be included in the mainstream classrooms, whereas children with moderate to severe disabilities should be placed in special schools. The policy also included a provision regarding teacher training for all mainstream teachers, and also including a compulsory special educator in pre-service training of teachers.

United Nations Convention on the Rights of the Child (1990) states that every child has the right to education" and has been indicated for the development of the child's personality, talents, mental and physical abilities to their fullest potential." The Convention on the Rights of Persons with Difficulties also states that access to

education is a right and inclusion is not an experiment to be tested but a value to be followed.

The Indian Constitution has passed the Eighty-sixth Amendment Act, 2002 - Right to education which mainly adds provisions regarding the Fundamental Right of a child to free and compulsory education until the child attains the age of fourteen and Article 21A declares that the state shall provide free and compulsory education to all children of the age of six to fourteen years. Ensuring health, nutrition and an inclusive school environment will help all children for their learning capabilities regardless of their caste, religion, gender, place of birth, disability, and is enjoined by the Constitutional Amendment (NCERT, 2005).

The United Nations Convention on the Rights of Persons with Disabilities (2006) states that the children with disabilities have right to get inclusive education system at all levels directed to the full development of human potential, sense of dignity and self-worth. National Curriculum Framework (NCF) 2005 states that a teacher to be a facilitator of children's learning in a manner that helps children to construct knowledge and meaning, the teacher in this process is a co-constructor of knowledge (NCERT, 2005).

1.2 Inclusion of Children with Special Needs in Education

Inclusive education is defined as a “system of education wherein students with and without disabilities learn together and the system of teaching and learning is suitably adapted to meet the learning needs of different types of students with disabilities” (RPWD Act, 2016).

“Inclusion is not about inserting persons with disabilities into existing structures, but about transforming systems to be inclusive of everyone. Inclusive communities put into place measures to support all children at home, at school, in vocational centres, sports and cultural events and in their communities. When barriers exist, inclusive communities transform the way they are organized to meet the needs of all children” (UNICEF, Children with Disabilities. Ending Discrimination and Promoting Participation, Development and Inclusion, Programme Guidance Note, 2007).

Inclusion is the practice of caring and educating differently abled children within the same environment as their normally developing peers. In inclusive

education programmes, children with disabilities participate and learn daily activities and routines.

The National Policy on Education (NPE) 1986 and Programme Of Action (POA), 1992 gives the basic policy framework for education, emphasizing on correcting the existing inequalities, it stresses on reducing dropout rates, improving learning achievements and expanding access to students who have not had an easy opportunity to be a part of the general system. The NPE, 1986 envisaged some measures for integrating of children with physical and mental handicap with the general community as equal partners, preparing them for their normal growth and development and enabling them to face life with courage and confidence.

India has also been signatory to international declarations like the Salamanca Statement and framework for action on Special Needs Education (1994) and Biwako Millennium Framework (BMF, 2002) and the United Nations Convention on the Rights of Persons with Disabilities (2006) that emphasize the need for fundamental educational policy shifts to enable general schools to include children with disabilities.

The National Curriculum Framework (NCF) 2005 recommends making the curriculum flexible and appropriate to accommodate the diversity of school children including those with disabilities in both cognitive and non-cognitive areas (NCERT, 2005).

The Centrally Sponsored Scheme of Integrated Education for the Disabled Children was introduced in 1992 with a view to providing educational opportunities for children with disabilities in general schools to facilitate their retention in the schools system. It provided for facilities to students with disabilities including expenses on books and stationary, expenses on uniforms, transport allowance, reader allowance, escort allowance, hostel accommodation and actual cost for equipments. The scheme also supported the appointment of special teachers, provision for resource rooms and removal of architectural barriers in schools.

The Centrally Sponsored Scheme of Sarva Shiksha Abhiyan (SSA) 2001 had set time-bound targets for the achievements of Universalization of Elementary Education (UEE). With “zero rejection’ as its cornerstone, the programme provided support for the inclusion of children with disabilities in general schools at the

elementary level. The SSA norms were further strengthened by the Right To Education (RTE) Act, 2009 which talks about free and compulsory elementary education to children without any discrimination on the basis of caste, gender, disability etc.

RTE Act, 2009 mandates inclusion of Children With Special Needs (CWSN), some may be unable to attend school despite specific interventions designed for their education. The Amendment of RTE Act 2012 has included CWSN in the definition of disadvantaged groups. It includes children with severe - multiple disabilities with the right to opt for Home Based Education (HBE), thus creating an enabling environment for all children.

As SSA supported inclusion of children with special needs at the elementary education level, a need was felt for a scheme for the disabled children at secondary stage. Inclusive Education of the Disabled at Secondary Stage (IEDSS) 2009 scheme was, therefore implemented to enable all children and young persons with disabilities to have access to secondary education and to improve their enrolment, retention and achievement in the general education system. Under the scheme every school was proposed to be made disabled-friendly. The Centrally Sponsored IEDSS Scheme aimed at enabling all students with disabilities completing eight years of elementary schooling an opportunity to complete four years of secondary schooling (classes IX to XII) in an inclusive and enabling environment and provided educational opportunities and facilities to students with disabilities in the general education system at the secondary level (classes IX to XII).

Samagra Shiksha (2018) is an overarching programme for the school education sector extending from pre-school to class XII has been proposed to treat school education holistically without segmentation from pre-nursery to Class 12. Therefore, it is prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes. It subsumes the three schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).

Samagra Shiksha 2018 aims to look at education of all children including CWSN in a continuum from pre-school to class XII. The scheme will cover all children with special needs with one or more disabilities as mentioned in the

schedule of disabilities of the Right of the Persons with Disabilities (RPWD) Act, 2016 studying in Government, Government-aided and local body schools.

The scheme stresses on working in convergence with all the line Departments/ Ministries and intends to provide relevant holistic support for effective and appropriate services for education of CWSN.

The objectives of the scheme are:

- To enable all children and young persons with disabilities to have access to inclusive education and improve their enrolment, retention and achievement in the general education system.
- Identification of children with disabilities at the school level and assessment of her/his educational needs.
- Provision of aids and appliance and assistive devices, to the children with special needs as per requirement.
- Removal of architectural barriers in schools so that students with disability have access to classrooms, laboratories, libraries and toilets in the school.
- Supplying appropriate teaching learning materials, medical facilities, vocational training support, guidance and counselling services and therapeutic services to children with special needs as per their requirement in convergence with line departments.
- General school teachers will be sensitized and trained to teach and involve children with special needs in the general classroom. For existing special educators, capacity building programmes will be undertaken.
- CWSN will have access to support services through special educators, establishment of resource rooms, vocational education, therapeutic services and counselling.

The Samagra Shiksha scheme covers all children from pre-school to senior secondary stage studying in Government, local body and Government-aided schools, with one or more disabilities as defined under The Rights of Persons with Disabilities Act, 2016 namely:

1. Blindness
2. Low-vision
3. Leprosy Cured persons
4. Hearing Impairment (deaf and hard of hearing)
5. Locomotor Disability
6. Dwarfism
7. Intellectual Disability
8. Mental Illness
9. Autism Spectrum Disorder
10. Cerebral Palsy
11. Muscular Dystrophy
12. Chronic Neurological conditions
13. Specific Learning Disabilities
14. Multiple Sclerosis
15. Speech and Language disability
16. Thalassemia
17. Hemophilia
18. Sickle Cell disease
19. Multiple Disabilities including deaf blindness
20. Acid Attack victim
21. Parkinson's disease

1.2.1 Availability of Adequate Infrastructure

Access to school will not be confined to mere availability of school but it will contain all the provisions that are required to attract and retain children in school till their completion of education. Provisions such as proper classrooms, adequate & functional toilets, Drinking water facility, ramps etc. are necessary part of any school building and need to be provided mandatorily.

All school buildings that will be constructed under the Scheme will have provision of rain water harvesting system and solar panel in the building plan itself and the school buildings will be designed so as to make them disabled friendly (Samagra Shiksha, An Integrated Scheme for School Education).

The Schedule of RTE Act, 2009 lays down the norms and standards for a school and provides that a school with an all weather building should consist of basic facilities for students such as barrier-free-access, ramp, handrails; safe and adequate drinking water facility to all students, playground, separate toilets for boys and girls, playing materials etc.

1.3 The Gazette of India Extraordinary, The Rights of Persons With Disabilities (RPWD) Act, 2016, Chapter III, Education

16. The appropriate Government and the local authorities shall endeavour that all educational institutions funded or recognised by them provide inclusive education to the children with disabilities and towards that end shall —

- (i) admit them without discrimination and provide education and opportunities for sports and recreation activities equally with others;
- (ii) make building, campus and various facilities accessible;
- (iii) provide reasonable accommodation according to the individual's requirements;
- (iv) provide necessary support individualised or otherwise in environments that maximise academic and social development consistent with the goal of full inclusion;
- (v) ensure that the education to persons who are blind or deaf or both is imparted in the most appropriate languages and modes and means of communication;
- (vi) detect specific learning disabilities in children at the earliest and take suitable pedagogical and other measures to overcome them;
- (vii) monitor participation, progress in terms of attainment levels and completion of education in respect of every student with disability;
- (viii) provide transportation facilities to the children with disabilities and also the attendant of the children with disabilities having high support needs.

17. The appropriate Government and the local authorities shall take the following measures for the purpose of section 16, namely:—

- (a) to conduct survey of school going children in every five years for identifying children with disabilities, ascertaining their special needs and the extent to

which these are being met: Provided that the first survey shall be conducted within a period of two years from the date of commencement of this Act;

- (b) to establish adequate number of teacher training institutions;
- (c) to train and employ teachers, including teachers with disability who are qualified in sign language and Braille and also teachers who are trained in teaching children with intellectual disability;
- (d) to train professionals and staff to support inclusive education at all levels of school education.
- (e) to establish adequate number of resource centres to support educational institutions at all levels of school education;
- (f) to promote the use of appropriate augmentative and alternative modes including means and formats of communication, Braille and sign language to supplement the use of one's own speech to fulfill the daily communication needs of persons with speech, communication or language disabilities and enables them to participate and contribute to their community and society;
- (g) to provide books, other learning materials and appropriate assistive devices to students with benchmark disabilities free of cost up to the age of eighteen years;
- (h) to provide scholarships in appropriate cases to students with benchmark disability;
- (i) to make suitable modifications in the curriculum and examination system to meet the needs of students with disabilities such as extra time for completion of examination paper, facility of scribe or amanuensis, exemption from second and third language courses;
- (j) to promote research to improve learning; and
- (k) any other measures, as may be required.

NEP (2020) recognizes the importance of creating enabling mechanisms for providing Children With Special Needs (CWSN) or Divyang, the same opportunities of obtaining quality education as any other child. This Policy reaffirms that bridging the social category gaps in access, participation, and learning outcomes in school education will continue to be one of the major goals of all education sector development programmes. This also ensures the inclusion and equal participation of children with disabilities in Early Childhood Care and Education (ECCE).

Children with disabilities will be enabled to fully participate in the regular schooling process from the Foundational Stage to higher education. This Policy is in complete consonance with the provisions of the RPWD Act 2016 and endorses all its recommendations with regard to school education. Teachers must be helped to identify children with specific learning disabilities who need continuous support and plan specifically for their mitigation. Specific actions will include the use of appropriate technology allowing and enabling children to work at their own pace, with flexible curricula in order to ensure equitable access and opportunities for all students with learning disabilities.

As per the RPWD Act, 2016 students with at least 40 % of any kind of disability is termed as benchmark disability. Students with benchmark disability shall have the choice of regular or special schooling. Central and State Governments will take steps to develop and support technology tools for better participation and learning outcomes and to ensure all buildings and facilities are wheelchair-accessible and disabled-friendly (NEP, 2020).

Teacher plays a key role in all kinds of education policies. Improvement in education mostly depends on the ability of a teacher's, pedagogic and technical qualities. Interaction and understanding are two important keys for quality education, and this cannot be compromised as a principle in any curricular intervention. Equal importance must be given to differently abled students in normal schools. However, all educational institutions could not provide facilities and infrastructure to these students even though support for these students is much needed for the bright future of this nation.

Globally, we all have experienced a huge shift in the education system from conventional mode to digital mode during the unexpected Corona virus pandemic. New assistive technologies are making teaching and learning processes and experiences more effective. While using new technologies in educational institutions such as e-learning and conventional learning, these students need special attention as well as some advanced devices with additional features which help them become familiar with it. Understanding the needs and requirements of these students is the best way to provide them quality education.

1.4 Assistive Devices

In recent years, assistive technology (AT) has received considerable attention globally. Technology has always played a vital role in almost every activity in the current life. A person knowingly or unknowingly uses technology to carry out daily life tasks.

According to WHO (2016) definition – an Assistive Technology (AT) is the application of organized knowledge and skills related to assistive products, including systems and services. Assistive technology is a subset of health technology.

According to WHO (2016) definition – an assistive product is any external product (including devices, equipment, instruments or software), especially produced or generally available, the primary purpose of which is to maintain or improve an individual's functioning and independence, and thereby promote their well-being. Assistive products are also used to prevent impairments and secondary health conditions.

According to ISO 9999 (2016) definition – An assistive product is any product (including devices, equipment, instruments and software), specially produced or generally available, used by or for persons with disability for participation; to protect, support, train, measure or substitute for body functions/structures and activities; or to prevent impairments, activity limitations or participation restrictions.

Previously, these devices were designed to perform one particular function or address one specific disability. However, disabilities cannot easily be categorized, and even two people with the same disability can have different degrees of impairment. The focus has therefore shifted to a more personalized, user centered approach from 'low-tech' devices to advanced assistive technologies that include sophisticated Information and Communications Technology (ICT), software, cyber-physical and stem-cell applications. They are presented in five broad sub-categories namely motor, vision, hearing, cognitive and communication disabilities.

This understanding of disability as a combination of medical and contextual factors is also mirrored in the United Nations Convention on the Rights of Persons

with Disabilities (UNCRPD) 2006, namely that people 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'.

People with disabilities are a diverse group: some are born with a disabling condition (e.g. Down syndrome) or demonstrate a condition early in life (e.g. autism). Others acquire a disability through injury (e.g. spinal cord injury) or a chronic disease (e.g. loss of a limb because of diabetes). Still others develop a disability in later stages of life such as dementia, age-related mobility disability, etc (EPRS, 2015).

United Nations Educational, Scientific and Cultural Organization (UNESCO, 2009) emphasizes about the content and different formats of information. Information is made up of symbolic elements, communicating scientific and technical knowledge, irrespective of their nature (numerical, textual, graphic, etc.) material carriers, form of presentation (paper-print form, micro form or machine readable form), etc. It refers both to the substance or contents of documents and to the physical existence; the term is also used to designate both message and its communication.

To make information accessible to all differently abled children in the class rooms, it is necessary to provide assistive devices. These assistive devices and technology can change the lives of differently abled children and can help them to overcome the barriers faced in accessing information. Assistive technological devices can help them to overcome the challenges.

Over the past few years, there has been a substantial development of advanced assistive technologies for differently abled students. Assistive devices are specially designed to enhance the functional capabilities of people with disabilities. Typically, these technological devices are used to meet specific activity goals of the student. Many devices are designed to reduce the limitations resulting from impairment and provide alternative ways to the student to do specific activities in the class. These devices make teachers to provide information effectively to students in the class room and these students can also get the information easily as well. It is essential to make sure that the assistive devices are need based.

- Technological innovations are necessary for meeting the learning requirements of differently abled children (NCERT, 2005).
- The special educators and regular teachers have the responsibility of making the curriculum accessible to differently abled students using different kinds of tools and devices.
- These devices can be broadly categorized into three groups i.e. low-tech, mid-tech and high-tech devices.

1.4.1 Importance of Assistive Devices

- Assistive technological devices enable differently abled students to move forward and excel in whichever field they want to.
- Assistive technological devices can be used to reduce the barriers in accessing the information, enhance the ability to learn and communicate and also improve the freedom of a student in a classroom.

1.4.2 Academic Assistive Devices

The curriculum must be inclusive as envisioned in National Curriculum Framework 2005. It should ensure that the same curriculum be followed for children with and without special needs, but with adaptations/modifications if required in learning content, teaching learning processes, teaching learning materials/aids and in evaluation, etc. Provision will be made to provide text books and curriculum in accessible formats to children with special needs.

1.5 Statement of the Problem

In the present study, the researcher has taken the problem to identify the availability of assistive devices for differently abled students in schools. Hence, the problem is stated as “Availability of Assistive Devices for Differently Abled Students in Schools of Bhopal”.

1.6 Need and Significance of the Study

As per RPWD Act, 2016 and NEP, 2020 barrier free access for all differently abled students will be enabled in the schools. Students with different types of disabilities have different needs and schools will have to work to support and ensure their full participation in the classroom. Especially, assistive devices and appropriate assistive technology based tools will be made available to help differently abled students to

integrate more easily and engage with teachers and their peers in the classroom. So, there is a need to get information on the availability of these assistive devices in schools.

- The present study aims at getting the ground level information about the availability of assistive devices for differently abled students in schools.
- This study will definitely help the authorities to know about the ground reality to make changes in the implementation strategies of different policies and schemes for inclusive education in schools.
- Hence, from the planning point of view the present study will play an important role for the concerning authorities and policy makers.

1.7 Objectives of the Present Study

- To study the availability of basic infrastructure in schools for differently abled students.
- To find out the availability of assistive devices for differently abled students in schools.

1.8 Delimitations of the Present Study

Successful practice of inclusive education depends on the availability of resources, training of teachers and positive attitude and culture in schools.

- The present study is confined to identify mere availability and presence of physical resources and assistive devices in selected schools.
- Major delimitation of the present study is deliberately restricted to resource availability.

1.9 Chapterization of the Present Study

The entire study is mainly divided into five different chapters as follows:

- Chapter One contains a brief introduction, statement of the problem, need and significance, objectives and delimitations of the present study.
- Chapter Two deals with related review of literature and how this literature helps the researcher to understand the relevance of the problem. In this chapter, an attempt has been made to arrange reviews; the relevant key topics have been selected for the present study.

- Chapter Three discusses the methodology followed for the present study. This chapter mainly includes different methods of research, design, population, sampling methods, tools used for the data collection, procedure of data collection, statistical methods and techniques used to analyse the data.
- Chapter Four deals with the analysis and interpretation of the collected data.
- Chapter Five includes a brief summary, findings, conclusion and suggestions for future research work.