Chapter I

SETTING OF THE RESEARCH PROBLEM
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1.1 INTRODUCTION

The last decade has witnessed substantial growth of special education services in India. The Government of India is implementing a major scheme by name “Education for All” (Sarva Shiksha Abhiyan shortly known as SSA) through the State Governments. The aim of this scheme is to give education for all school going population including the children with disabilities. The objective in the case of these children is that they should not be left out because of lack of funds, caste, colour or any other inequality. The Government of India facilitates funding, provision of aids and appliances to the State Governments to offer special education services etc. This attempt is an indicator for the commitment of the Government of India towards education for all children with disabilities. One of the key factors of success of this scheme is the availability of trained human resources, but in reality, there is an acute shortage of such resources to serve children with disabilities in India. It is more so in specialized areas such as education of children with low vision.
Last 50 years have brought out substantial changes both in thinking and practice in services to persons with visual impairment. The sight saving concept has been disproved and as a result of research studies there is increasing awareness about low vision education.

Statistics all over the world revealed that for every blind child there are at least four children with low vision (World Health Organisation, 2005). In the past, education of low vision did not receive full attention for two reasons:

a) Educators were overwhelmed with issues related with blindness
b) Sufficient software and hardware technology were not available.

Technological development has influenced the development of low vision services too. Though services are reported abundantly in developed countries, low vision service is still reported as an emerging area in India. As low vision services are gradually expanding in India, a thorough study of the status of low vision services in Tamil Nadu would definitely help service providers to plan appropriate services effectively. Hence the investigator selected the current study.
1.2 BLINDNESS IN INDIA

Nijhawan (1999) narrated the historical status of blindness in India as briefed below: 1) there is no historical evidence that the blind in this country were ever denied the right to live. But religious beliefs are of the nature that blindness is a kind of punishment for past sins and it is being equated with evil of adverse nature without the development of services for people with visual impairment. It was only with the arrival of European Missionaries that services development was introduced in India. (2) Since a large number of blind people in the country still depend upon charity, the image of blind people as beggars still lingers on in the minds of ordinary people. (3) Many blind children are victims of parental rejection – open or disguised. (4) Blindness is considered to be mysterious by some, and blind people are thought to be endowed with mysterious qualities. (5) Independence of India has brought about a phenomenal increase in services for people with visual impairment through Government intervention and the support of international aid agencies. (6) Through the ages, there have been a number of eminent blind people who became famous because of their scholarly and intellectual capacities. Today, there are a number of well-adjusted and capable blind people in the country coming from different walks of life. But the majority of them still feel alienated and isolated. (7) Historically, blindness can be seen against a backdrop of religious beliefs,
mythology, cultural bias and socio-psychological contexts. 8) Attempts at self-liberation by certain individuals, the genesis of Braille, Governmental intervention, legislative measures, financial assistance received from international aid agencies and technological developments have played a vital role in developing services for people with visual impairment in India.

1.3 IMPORTANT MILESTONES FOR THE DEVELOPMENT EDUCATION AND LIFE OF BLIND CHILDREN IN INDIA

a) The basic structure of the Constitution of India, as reflected in its preamble, ensures social, economic and political justice as well as equality of status and of opportunity to all Indian citizens. And hence, it is the constitutional duty of the State to ensure equal justice and equality to all citizens, including people with disabilities and other marginalized groups of people. The policy of State Government regarding the right to work of people with disabilities is enshrined in the Directive Principles under Section 41, which states: “The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of underserved want”. Despite the spirit of social justice and equality stated in the Constitution
and Directive Principles of the policy of State Government on promoting services to people with disabilities, a negligible percentage of such persons have access to such services. Even after Independence, hardly 5% of school-age children with visual impairment have access to education. Even today, education for blind is considered a welfare activity rather than a fundamental-rights activity.

b) The Central Scheme of Integrated Education for People with Disabilities: This scheme was originally introduced in 1974 and was revised in 1987, 1989 and 1992 by the Ministry of Human Resource Development, India. This Ministry helps State Governments and voluntary organizations to enroll children with disabilities in the mainstream general education. Many integrated education programmes in India are being implemented through this scheme.

c) National Policy on Education (1986): This is for the first time, that a policy considering 'education for all' was adopted as one of the goals of national development. The policy recognizes that the non-enrolment and drop-out of special groups of children is a major difficulty. Outlining the steps for ensuring equal educational opportunities for children with disabilities, the National Policy on Education states that the objective should be
‘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. It envisages that ‘wherever it is feasible, the education of children with motor handicaps and other mild handicaps will be common with that of others.’

d) The Plan of Action (1986): The Plan of Action stresses that as residential education is very costly, only children whose needs cannot be met in regular schools should be enrolled.

e) The Barul Islam Committee on Legislation for the Handicapped (1988): The committee included education of people with disabilities in the draft legislation. It recommends that the State should endeavour to provide free and universal elementary education to children with physical and intellectual disabilities. The State should also provide assistance for education and training at the secondary and higher levels. The draft legislation emphasized the promotion of integrated education and continuation of residential education.

f) The People with Disabilities Act, 1995 (PWD Act, 1995): The enactment of the Act granted legislative recognition to the need for the promotion of comprehensive services for disabled
persons notified by the Act. The title of the Act establishes that the State desires to extend them equal opportunities protect their fundamental, human and civil rights, and ensure their full participation in the mainstream of social life.

g) Supreme Court verdict on PWD Act 1995: The Supreme Court awarded important guidelines which are listed below:

- To spell out the responsibility of the State towards the prevention of disabilities, protection of rights, provision of medical care, education, training, employment and rehabilitation of people with disabilities.

- To create a barrier – free environment for people with disabilities.

- To remove any discrimination against people with disabilities in the sharing of development benefits, vis-a-vis non-disabled people.

- To counteract any situation leading to the abuse and exploitation of people with disabilities.

- To lay down strategies for the comprehensive development of programmes and services and equalization of opportunities for people with disabilities.
• To make special provision for the integration of people with disabilities into the social mainstream.

1.3.1 Role of Central Government in Education for Blind and Other Disabilities

The following flow chart will clearly explain the role of various Central Government Ministries.
1.3.2. Role of the State Government in Education for Blind and Other Disabilities

The following flow chart will clearly explain the role of various State Government departments:
1.3.3 Abbreviation Index

NGO : Non-Governmental Organization
TRYSEM : Training of Rural Youth for Self-Employment
IRDP : Integrated Rural Development Programme
DWACR : Development of Women and Children in Rural Areas
NIVH : National Institute of Visually Handicapped
CAPART : Council for Advancement of People's Action & Rural Technology
NCERT : National Council for Educational Research and Training
DPEP : District Primary Education Project
PIED : Project Integrated Education for Disabled
PCO : Public Call Office
STD : Subscribers Trunk Dial Service
ALIMCO : Artificial Limbs Manufacturing Corporation of India

1.3.4 Introduction to current Low Vision Services available for Children with Low Vision in Tamil Nadu

Special Education in India is being governed by both the Ministry of Human Resource Development and Ministry of Social Justice and Empowerment at central level but State Governments are directly
responsible for implementation, supervision and inspection of Special Education Programmes. School Education follows the pattern of first standard to tenth standard (secondary level education) and plus two (higher secondary level education) in Tamil Nadu State. This formal school education is offered under two schemes at present, namely, School for the Blind and Integrated Education Programme (in general schools). Schools for the Blind come under the purview of Social Welfare Department (Government of Tamil Nadu) and Integrated Education Programme under Education Department (Government of Tamil Nadu). Integrated Education Programmes in the state are mostly implemented by non-governmental agencies generally known as Integrated Education Implementation Committees / Councils. In Tamil Nadu, there are five major Integrated Education Implementation Committees, namely

1. Pallava Integrated Education Implementation Committee, Arakkonam,
2. Integrated Education Implementation Committee, Cuddalore,
3. Integrated Education Implementation Committee, Madurai,
4. Integrated Education Promotion Council, Madurai, and
1.4 KEY LOW VISION SERVICES

The key low vision services available at present include the following:

1.4.1 Literacy and the Most Appropriate Reading Media

Children with low vision must have literacy through use of viable technology, for example, use of large print text books or use of magnifiers. Use of Braille as reading medium for children with low vision is no longer acceptable. Efforts are being taken to introduce print reading as appropriate media for children with low vision in Tamil Nadu.

1.4.2 The Use of Low Vision Devices (Optical, Non-Optical and Electronic)

Provision of individual large print book is ideal, but this is expensive. At present most instructional programmes use magnifiers, reading stand etc., for children with low vision. Large print materials are seldom used. Technically speaking, provision of magnifiers is economical for countries like India.

1.4.3 Adaptive Environment

When to use vision and when not must be taught to children with low vision. The low vision child has to interact with a variety of environment in his life. Hence knowledge about environmental modification is essential for the smooth functioning of the low vision
individual. At present limited adaptation is made at the learning environment of the child.

1.4.4 Services for Children with Multiple Impairments

Special training is necessary for teaching children with low vision with other mild impairments as these services are not available at present.

1.4.5 Funding of Low Vision Services

The Government of India is offering funds through the Integrated Education for the Disabled Scheme (IEDC) to State Governments since 1992. At present, further support is also provided by the Sarva Shiksha Abhiyan Programme till now. Low vision is a component of these funding programmes.

1.4.6 Professional Development in the Field

Capacity Building is the need of the hour. India needs more number of trained manpower to teach low vision children. At present, low vision education is in an infancy stage. Only a limited number of teachers get training in specialized low vision services every year.
1.4.7 Information and Support for Parents of Children with Low Vision

Parents need counseling in order to give proper opportunities and guidance for children with low vision at home and society. Though guidance is provided at the institute level, there is no focused Parents' Body as such to promote low vision services. Therefore, the researcher was motivated to conduct a study in this area as low vision field is emerging worldwide.

1.5 ASSESSMENT

Assessment in low vision education is another important area of interest for educators. The following sections provide details of the existing practices in low vision assessment.

1.5.1 Near Vision

The range of accommodation of young children allows them to bring objects very close to the eyes and thus increase image size. While testing near visual acuity reading should be used, as single words or passages of text are testing reading skills as well as acuity. Near visual acuity is an important pre-requisite skill for print reading. It is a recommended procedure to use clinical tests that are suitable for illiterates too.
1.5.2 Functional Vision

The purpose of assessment of functional vision is to determine i) if vision is present ii) the level of vision and iii) what it can be used for. Amongst the areas that are to be included in an assessment of functional vision in infants and children are the following:

- **Fixation**
  
  The ability of the eyes is to fix a target and maintain steady fixation. The size and type of objects can be varied according to the age and interest of the child.

- **Eye Movements**
  
  Tracking: the ability to follow moving objects or people ii) shifting gaze from one object to another and iii) scanning to find objects.

- **The Use of Vision**
  
  The following various tasks may be included for using the residual vision. i) educational tasks ii) independent mobility (visually direct reach; safe mobility) and iii) social contact (identifying individuals), and iv) independent living skills (identifying objects)

- **Pioneering Work in low vision**
  
  Dr. Natalie Barraga published the Visual Efficiency Scale (VES) in 1970 which became the first attempt to measure change in visual
functioning of children at near distance. The VES showed that, through a structured programme, children could become more efficient in the use of their functional vision. In many parts of the world, this approach to low vision was considered a radical departure from a long-held belief that impaired vision was to be conserved or it would further deteriorate.

In the medical disciplines, in 1924 the first telescopic lenses were demonstrated before a medical organization and in 1953 the first organized low vision clinic was established at the New York Association for the Blind, to promote near and distance visual functioning using optical devices. Today there is a blending of the educational and the medical approaches and a realization that the optimum instructional programme combines the best of learning to use unaided vision and learning to use optical devices.

1.6 BASIC PREMISES OF INSTRUCTIONAL PROGRAMMES

Instructional programmes, whether standardized or designed for an individual child, should follow these basic premises.

- A functional vision assessment forms the basis for the development of an instructional programme in the use of low vision or the determination that a standardized programme is appropriate.
• Information from the medical examination and low vision clinical evaluation must be taken into consideration when an instructional design is chosen or designed.

• The earlier instructional programme is established for the child with low vision, the more changes may be effected in the child’s functional use of vision.

• Goals for the use of low vision should not be expected to exceed the visual skills of a fully sighted child with a comparable mental age.

• While some children may appear to develop their visual function without intervention, not all children with low vision will spontaneously learn to utilize their available vision.

• Instructional programmes require that children act on visual stimuli rather than be passive observers of visual stimuli.

• Instruction takes into consideration the child’s immediate and future visual environments in the domains of domestic life, school or work, community, and recreation and leisure.

• Instruction incorporates functional skills, aesthetic development and/or psychological goals.

• Each person has an optimal level of visual function at which function can be comfortably sustained.
• Instructional approaches should lead to expanding rather than restricting access to visual environments.

• Instruction should be provided to the greatest extent possible in the natural environments of the child.

1.7 LEVELS OF INSTRUCTION

Instructional programmes may be designed to carry out the components of three levels of visual function; vision stimulation, visual efficiency and vision utilization. These levels provide a structure for approaches already utilized in many countries and provide a direction from Level I to Level III in which the child moves from one in which the visual environment is being directed by external individuals to one in which the child develops control over his own visual environment.

1.7.1 Vision Stimulation

Vision stimulation is a part of the visual process (react, act, respond) by understanding the meaning of light, the direction of light source, the form of a light source or object; coordinating motor, sensory, and other actions and reactions with light; and being aware of motor, sensory, and other actions with the object form.
1.7.2 Visual Efficiency

By Visual Efficiency the child interprets visual stimuli by making sense of visual images (outlines, details, colours, contours, configurations and patterns) of objects; making time-efficient decisions about visual information; coordinating visual information with other senses and motor actions; coordinating communication and language with visual images; utilizing verbal mediation and other responses, as needed to confirm visual hypotheses; and anticipating, identifying and generalizing specific visual images.

1.7.3 Vision Utilization

Vision Utilization is to help a child become an active participant in the enhancement of his or her low vision use by learning to perceive and interpret environmental cues; altering body positions to rearrange environmental cues; modifying the environment; using prescribed optical devices; knowing when to combine senses; knowing when not to use vision; knowing what helps or hinders visual function; and understanding the causes of "visual discomfort" related to having low vision.

1.8 STATEMENT OF THE PROBLEM

Statement of the problem for this study is as follows: "A Study on the Status of Low Vision Services in Tamil Nadu".

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1.9 MEANING OF IMPORTANT TERMS

1.9.1 Low Vision

Definition: “A person with low vision is one who has impairment of visual function even after treatment and / or refractive correction, and has visual acuity in the better eye of <6/18 to light perception, or a visual field of <10° from the point of fixation, but who uses or is potentially able to use vision for the planning or execution of a task.” (WHO, 1996)

1.9.2 Low Vision Services

Clinical as well as educational services both put together may be called as low vision services. Assessment of visual acuity, visual field and other ailments are called clinical services. Educational services are rendered by Special Teachers (in Schools for the Blind) / Resource Teachers (in Integrated Education Services for Visually Impaired Children) / Regular Teachers (in Inclusive settings). The educational services include mostly vision stimulation, visual efficiency and vision utilization.

1.9.3 Special School

It is a specialised learning environment where all the pupils are legally blind / children with low vision.
1.9.4 Integrated School

A general school which offers educational services for children with disabilities alone with non-disabled children.

1.9.5 Inclusive School

It is a system of education where the general education assumes major responsibility for education of children with disabilities with the support of specialist teachers.

1.9.6 Status

Status in the context of the study means current position or current level of low vision services.

1.10 NEED FOR THE STUDY

The most recent (2005) projected estimate for world blindness points to some 37 million blind, and additional 124 million visually impaired (those with low vision). About 90% of the world’s blind live in the developing world (WHO, 2005). It is estimated that there are 9-12 million blind people in India, which amounts to about one-fourth of all the blind people worldwide (Thylefors et.al., 1995; Bhattacharjee et.al., 1996). A survey in 1986 by the World Health Organization and National Prevention and Control of Blindness in India showed that 10% of the 9.61 million (i.e. 0.96 million) persons have incurable blindness and
would require rehabilitation services. This projection is valid even at present times. It has been observed that almost 90% of the blind population does not have total loss of visual function, but retain a degree of usable residual vision (NSPB, 1980). Given this alarming situation, there is a great need for comprehensive low vision rehabilitation services in India and other developing countries. The present study becomes imperative from various dimensions.

Firstly there is a strong need for taking stock of the current needs of the system. Needs of teacher educators, administrators, special teachers or resource teachers, care taker-cum-resource teacher aides, parents and needs of children with low vision should be studied. Policy making bodies may need this type of study to take decisions pertaining to teacher preparation programme, field level intervention for the evaluation of education of low vision etc. Secondly, the present curriculum for teacher preparation in education for visually disabled children may be upgraded in tune with the educational needs of population of children with low vision. Thirdly, educational needs of children with low vision with reference to vision stimulation and vision utilization needs detailed study. Hence the investigator is motivated to pursue a research problem in the area of low vision.
1.11 OBJECTIVES OF THE STUDY

The main objectives of the study were to know the performance of children with low vision in Tamil Nadu in vision stimulation, visual efficiency and vision utilization. The investigator used children with low vision, teacher educators, administrators and teachers as the sample for the study. The specific objectives are as follows:

1. To study the vision stimulation skills taught to children with low vision on the basis of different educational settings, degree of blindness, gender and age.

2. To study the visual efficiency skills taught to children with low vision on the basis of different educational settings, degree of blindness, gender and age.

3. To study the vision utilization skills taught to children with low vision on the basis of different educational settings, degree of blindness, gender and age.

4. To investigate the methods used by Special teachers / Resource teachers in educating children with low vision.

5. To find out the nature of devices used by educational institutions in providing services to children with low vision.

6. To find out the views of teacher educators about the adequacy of low vision content areas in teacher preparation courses.
7. To find out the views of administrators about the problems encountered in providing services to children with low vision.

8. To find out the views of headmasters of schools for the blind about the problems encountered in providing low vision services to children with low vision children.

9. To find out the ways in which parents can help children with low vision improve their visual efficiency skills.

10. To find out the views of low vision children about the problems encountered by them in getting educational and other support.

1.12 SCOPE OF THE STUDY

a) Findings of this study is expected to suggest a better teaching strategy for low vision children in primary, secondary and higher secondary level classes.

b) The test items of the tool were constructed in such a way that the tool could also be used as a resource material for developing vision stimulation, visual efficiency and vision utilization skills in low vision children.

c) Findings of this study may be helpful to frame new guidelines for construction of curriculum for low vision education.
d) The current teacher preparation programme is more suitable for helping the student-teacher in teaching totally blind children than teaching children with low vision. The findings of the study may reveal the nature of curriculum input to be included in teacher preparation programme for blind children in India with a thrust on education of low vision children.

e) The findings may be useful for administrators to plan and implement programmes to serve children with low vision.

f) The findings of study may be useful for parents too. How to guide low children in home and other social settings may emerge from the findings of the study.

In short, the study has multifarious uses for strengthening educational and support services for children with low vision.

1.13 DELIMITATIONS OF THE STUDY

Due to limitations in time and other resources the investigator focused only on three areas namely, vision stimulation, visual efficiency and vision utilization to study the efficiency of low vision children. The sample selection was from the schools only and therefore, children with low vision from the community were not included. However, maximum care was taken to improve the generalisability of the results of the study to a wider population of children with low vision.
1.14 ORGANIZATION OF THE STUDY

The first chapter deals with the statement of problem, need for the study and scope. The second chapter deals with related literature pertaining to the topic of the study. The third Chapter deals with sampling, validity and reliability of tool, statistical procedure, etc. The fourth chapter deals with quantitative and qualitative analysis and interpretations of data. The fifth chapter deals with findings and recommendations. Bibliography and along with website references are appended.