

Education for the Visually Impaired in India - Challenges ahead

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Abstract: Visual impairment is one of the major socio-economic issues in India. There is an urgent need for awareness among educators, policy makers, parents and the disabled people among visual impairment. This paper presents a brief summary about the prevailing general situation of the visually impaired people and their training and job placement prospects in the country. Emerging needs concerning educational facilities for the visually impaired and focus on the issues related to cost effective integrated education have been discussed. Developing assistive technologies and the role of institutions in making them accessible to the disabled in the new information age are also discussed.

Keywords: Braille, Visual impairment, Assistive devices

1. Introduction [1,9]:

India, the second most populous country in the world with 975.8 million people (according to 1998 UN estimate) is the home of 17 percent of the world's population. The country however accounts for 2.4 percent of the total area. The 1991 survey reveals that the literacy rate in the country (excluding Jammu & Kashmir) is 52.2 percent. The majority (about 74 percent) of the people in India live in rural areas. In 1994, WHO estimated the world blind population to be around 38 million with further 110 million cases of persons with low vision that are at risk of becoming visually impaired. Thus, the global figure of serious visual impairment is approximately 148 million people. China, India and Africa account for 53 percent of global blindness. In a national survey conducted during 1986-89 (National Program for Control of Blindness) by NPCB/WHO in India, the prevalence of blindness was found to be 1.49 percent. As per the survey results there are more than 12 million 'economically blind' persons (visual acuity with best correction in the better eye being below 6/60 - 3/60 Perception of Light as per the definition of blindness recommended by WHO). The major causes of blindness in India are Cataract, Glaucoma, Trachoma and malnutrition including vitamin A deficiency. In more than four fifths of cases, Cataract is the main cause of

blindness. Much blindness is preventable and can be attributed to inadequate medical facilities and diseases caused by poor hygiene and sanitation and the unavailability of pure drinking water. Most visually impaired persons live in rural areas where the availability of special medical services to them is not easy. However, there is also a high concentration of visually impaired people in large towns and cities where most institutions and schools for the blind are located and begging is a lucrative profession for the illiterate ones. It is also found that 0.12 million visually impaired children belong to the school going age (6 - 14 years). Regular Ophthalmic screening program for the school children will help to catch them young.

2. General situation [7]:

In India, services for the visually impaired people include medical support, training and job placements, vocational rehabilitation, and community based rehabilitation and educational facilities. There are teachers' training and staff training programmes, integrated education facilities, Braille printing presses, Braille libraries, mobility training programmes, vocational training centers, agricultural training centers, rehabilitation training centers for the adventitious blind persons and a small unit for deaf-

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blind persons. In addition, a number of special aids and equipments including Braille wristwatches and braille are now manufactured in India. However, these services are unevenly distributed and still inadequate. Existing services help not more than 5 percent of the entire blind population.

Hinduism subscribes to the theory of 'Karma' - cause and effect, and a belief in transmigration of the soul and a cycle of life and death. This leads many to believe that blindness is a punishment for sins if not committed in this life, then committed in a previous life. This accounts, in part for the apathy towards the welfare of the visually impaired.

Women and girls with visual impairment in every community whether rural or urban area experience triple discrimination: from being female, disabled and poor. They are likely to receive less care and community activities. They also have less access to health care and rehabilitation services, fewer opportunities to be educated and employed and little hope of marriage. They are more vulnerable to physical and psychological abuse.

The joint family system has been an integral part of Indian society. It was the duty of the family to protect and support a disabled member. This proved to be a most beneficial system. When a family did not or could not protect and support the disabled members, they are forced to the option of begging. With rapid industrialization, migration from rural to urban areas and the consequent break up of joint family system and increased education and literacy, the attitude of society towards visually impaired persons has changed. The belief that, with education and rehabilitation programmes, visually impaired people can become self-reliant members of the community, is slowly being accepted. The ultimate goal of rehabilitation services needs to be integration of the visually impaired into the community. This is possible only when a visually impaired person is economically independent and engaged in useful and remunerative work. Education and training without economic rehabilitation will only increase frustration, particularly in India where social security is virtually nonexistent. The visually impaired people remain, by and large, on the lowest rung of the economic ladder.

3 . Training, employment & placement [7]:

Education and training are of little value unless they are followed by placement in suitable jobs. There are about 50

training centers for the visually impaired persons which range from small training centers where chair caning, basketry and weaving are taught to modern sophisticated training centers in Bombay, Delhi, Ahmedabad, Pune, Dehra Dun where the emphasis is on light engineering, assembly work, carpentry, tailoring and other trades. There are about 3,500 people getting training in these centers. The Training Center for the Adult Blind (TCAB) of the Government of India established a placement office for the visually impaired in Madras to find jobs for the trainees. National Association for the Blind (NAB) placement service in Bombay has been expanded considerably. NAB also provides financial and technical assistance to establish placement services in many states. Government and voluntary placement services have placed about 5000 persons in open employment. Most placements have been in simple, repetitive jobs in factories, mills, etc. Lately, the emphasis has shifted slightly, and some visually impaired have been placed in the area of light engineering as machine operators.

Visually impaired people have engaged in forms of self-employment schemes. Efforts are being made by agencies to promote self-employment schemes on a large scale. Banks have also come forward with schemes for loans with various limitations at different interest rates. Self-employment is of particular relevance in rural areas. The training centers - Tata Agricultural and Rural Training Center for the Blind in Gujarat and the agricultural training unit attached to the Blind Boys Academy of the Ramakrishna Ashram in West Bengal, where about 50 visually

impaired persons are trained, there is no large scale programme for training and resettling rural blind people. And not all of them can be trained to work on land, since most of them are landless peasants. Self-employment schemes for small poultry units, dairy farming, village handicrafts, and small shops are needed to be promoted.

Finding suitable job for educated visually impaired persons has been difficult. Most of them have sought jobs in the blind welfare field, which is nearing saturation. Telephony is an area in which a number of educated visually impaired people have been placed, and some have found jobs as shorthand typists and announcers. Compared to the quantum of unemployed and underemployed visually impaired people of India, the placement officers for them

are a few. Schools complain that they send pupils out at the end of schooling to an uncertain, aimless future. The lack of positive attitudes on the part of employers is certainly a factor to be considered. Lack of confidence in the ability of the visually impaired workers and the availability of sighted workers are the obvious reasons for employer resistance. Trade union practices, strikes, fears regarding safety, compensation further complicate the issue.

In India now, Christoffel Blinden Mission (CBM) of Germany is well recognized for its contribution in the field of rehabilitation for the blind, and this has been possible by the representative of CBM south Asia region Mr.P.G.Micheal. He introduced community rehabilitation services and the total eye-care services. In 1985, CBM in partnership with Helen Keller Service Society of Madurai launched the concept of Community Based Rehabilitation. CBM has also implemented integrated education in Tamil Nadu through resource and itinerant plans.

4 . Education and ground level realities [2,4,5,6]:

The first school for the visually impaired was founded in Amritsar, Punjab by a missionary, Miss. Annie Sharp in 1887. Today there are approximately 250 schools and 150 institutions and associations for the visually impaired people across the country. About 15,000 children are being educated through these schools. Integrated education or inclusive education was initially conceptualized as alternative approach to bring all those unreached visually impaired children under the umbrella of education .It was projected by the Governments and voluntary agencies as the economically viable, psychologically superior and socially accepted model. In principle, the projections are correct but the ground level realities indicate that even the best-integrated education programmes in India are finding it difficult to enroll new children. The integration that is in vogue since 1980 serves not more than 5000 visually impaired children in the entire country. The present scenario indicates that the program expansion is not satisfactory. At this rate, another three to four decades may be necessary to serve all the disabled children, and further incidence of blindness may also make the target far from reach. In such slow pace, statistics and projections may remain mere intellectual exercises.

The system of integrated education or inclusive educa-

tion for the blind and low vision children in India was implemented by Christoffel Blinden Mission (CBM), Germany. This new approach has now made possible education for the visually impaired and changed their life and future prospects. Integrated education is a system where disabled children get equal opportunity with other children with full participation, and the needed supportive services which include of their special needs. The disabled children study in the local school playing, participating and competing equally with other children. Integrated education for the visually impaired aims at normalizing the life and education of the visually impaired in the least restrictive environment. It is more a compulsion than an option in India as considering the enormity of disabled children and a rural based demographical pattern. Visually impaired children are enrolled in regular class rooms in the local school. The class teacher assumes major responsibilities for the visually impaired students in the academic programmes. The resource teacher is responsible for instruction of special techniques or skills required for the full participation of the disabled children. Integrated education is also cost effective since, most of the local resources are used including the local school facilities. Additional expenditure relates to provision of salary for the resource teacher, cost of special equipment and resource materials for equal participation in the class room. Conceptual clarity on integrated education is found among organizations working for the visually impaired people and professionals as well. There is common consensus that integrated education should aim at normalizing the life and education of the visually impaired but opinions vary to a great extent in realizing the goal. Many implementing strategies are currently observed in India. Resource models with residential facilities are predominantly found in Tamil Nadu. Resource models with non-residential facilities are found in Orissa and Madhya Pradesh. Itinerant programmes are mostly found in Gujarat and Maharashtra. Multi-category approaches are found in Rajasthan and Haryana and many specific projects in different states. The dual teacher plan is found in Mizoram and Nagaland where transportation between different localities is inadequate. The composite area approach is in practice in the Project Integrated Education for the Disabled (PIED) supported by UNICEF-India in ten selective blocks in the country. It is a common tendency of the implementing agency that its approach is

the best one for integrated education. Any implementing agency, which follows a specific approach of integration, does not experiment the other models in order to expand its programme. Because of the divisions in opinions among implementing organizations, a national consensus in implementing strategies has not emerged so far. Openness to cost effective integrated models is necessary keeping in view the national goals.

5 . Some views:

The following key aspects need to be clarified for facilitating speedy development of appropriate services.

(i) Education of the visually impaired is not a welfare activity:

Education is the basic rite of the child. Treating education for the visually impaired as welfare brings down the dignity of education.

(ii) Integrated education cannot replace special schools:

The purpose of integrated education is to accelerate the services for the visually impaired and not to retard the existing special schools. Integrated education is suitable for academically capable visually impaired children only, and therefore, sizable portion of the visually impaired children cannot be benefited by integration. Therefore, both special schools and integrated education are necessary.

(iii) Need for special school - integrated education collaboration:

Instead of having separate schemes and policies for visually impaired children under separate ministries and departments, a common policy on disability with different sections devoted for specific disabilities may be developed. The Rehabilitation Council of India (RCI) can play a vital role in formulating such a policy. An expert committee can work out the modalities of possible collaboration between special schools and integrated education and specify how such collaboration can work in day-to-day activities.

(iv) The multi-category approach is not against the single category approach:

The multi-category approach is a context specific model to serve all the disabled of a particular locality. Resource

model is academically superior to all other models of integration but duplication of resource model for mass implementation is not feasible. More than 80 percent of the disabled children in the country, especially those in rural areas are scattered, and therefore, the multi-category approach becomes inevitable.

(v) Need to address unbalance in programme expansion:

Services for visually impaired children have grown up to a significant extent in metropolitan cities and advanced states of the country. The states Bihar, Rajasthan, Orissa, Madhya Pradesh, Andhra Pradesh and Uttar Pradesh constitute approximately 50 percent of the population of India and the general literacy rate is far below the national average of 52.2 percent. It is observed that these states have only a handful of teacher preparation programmes geared towards special education. Governmental agencies and voluntary organizations need to concentrate on these areas where services are minimal.

Education is not the domain of normal individuals alone. Through educational process, each and every individual, including the disabled gains strength of mind and opportunity to be independent. The report of Indian Education Commission (1964-66) states, "Education ought to be related to the life, needs and aspirations of the people, and thereby made a powerful instrument of social, economic and cultural transformation". Thus education would enable a disabled person to transform from life of complete isolation and social neglect to emerge as self-supporting, economically independent and useful members of society. Even though expenditure on education for the visually impaired appears to be more expensive compared to that of normal children, it is an investment, which yields returns after quite a long time.

6 . Emerging needs [3,8]:

Visual impairment is a major socio-economic issues and it is to be understood and addressed in a cost effective and socially productive manner. There is an urgent need for awareness among educators, specialists, policy makers, parents, disabled people themselves and finally among the common man regarding visual impairment and the services for the disabled people. The Governmental, Non-Governmental and voluntary agencies need to gear

up their services towards training of more personnel and installing medical, educational, social and vocational rehabilitation services in rural areas.

India is beginning to accept the fact that inclusive education is the only answer. However it takes different forms according to the need. The priority areas as far as education for the visually impaired is concerned are:

(i) Establishing integrated education schools and special schools spanning rural areas across the country with suitable resource models.

(ii) Provision for regular assessment of eye condition at educational institutions should be made mandatory. The eye condition of a visually impaired student with low vision might change due to educational environment and stress in learning, there should be a functional vision assessment by registered team of eye specialists at regular time intervals. The assessment of each visually impaired student should be interpreted to the class teacher. Specialized evaluations such as orientation and mobility, psychological and physical education should be recommended if need arises.

(iii) Identifying the areas or topics where visual handicap poses severe learning difficulties for the students and research leading to devise suitable teaching methodologies and competencies in order to enable the students to overcome these pedagogical problems.

(iv) Formulation of systematic teaching modules which could be easily replicated in schools for the visually impaired and integral settings.

(v) Development of affordable basic technologies and instrumentation to facilitate comprehensive coverage of the school and graduate level curriculum. The success of integrated education relates to the availability of low cost and local indigenous equipments. It is essential that the visually impaired student has all the learning materials in the appropriate media.

(vi) Training of teachers (in-service and pre-service special education) on inclusive classroom teaching and learning strategies. As the competency of the teacher is essential in special education he/she needs to be equipped periodically with workshops and seminars.

(vii) Interaction and exchange of educational expertise between institutions in order to promote the best practices in inclusive education.

(viii) Setting up Braille section with Braille books, magazines, talking books in libraries of higher education insti-

tutions and universities.

(ix) Nationwide information network of the institutions for the visually impaired connected with a host server.

(x) Children with visual impairment and blindness need special teaching and different educational facilities with assistive devices. They are often marginalized within or excluded from the school systems and remain hidden as a result of the stigmatizing attitudes and negative value dispositions of the community members. As education is the birth rite of every child, it must be the top priority in the national agenda and every care and effort must be applied specially to the disabled people.

As India leaps into the Information Technology era, developments in this new field are opening up new and cost-effective approaches for providing the reach of higher education to the youth as well as to those who need continuing education for meeting the demands of explosion of information, fast changing nature of occupations and life long education. The internet provides the opportunity for the visually impaired individuals to obtain information on an equal footing with that of sighted computer users. Developing the required softwares, assistive technologies, training of the disabled people in using such technology rest with the IT corporates and Non-governmental organizations. Accessibility and availability of such technologies to the disabled people need to be supported and executed by the state and central government organizations in all educational institutions.

7 . Some remarks and future focus:

Though there are some integrated schools and special schools for the visually impaired across the nation the Braille and Tactile teaching materials for the science topics and resource materials for the special educators are not available beyond Secondary level of education. Hence the visually impaired students are restricted to take up their higher education in the areas of liberal arts. This restricts their job opportunities to the topics of Humanities. There is need from educators, resource persons to design and design science curriculum and develop resource materials for those subjects for Higher Secondary and graduate courses. The authors of this article attempt in these directions so that in the rapidly changing era of Science and Information Technology the visually impaired will not be deprived of the opportunity to have

access with knowledge and information, which are the basic right of any individual. The current work is carried out with a two-fold aim: (i) to prepare Mathematics study materials using Nemeth Braille and Tactile for the visually impaired students and (ii) to prepare teaching methods for the special educators using the study materials thus prepared.

Assistive technology and computer softwares including speech synthesizers, screen readers, character recognizers, text magnifiers etc, have enabled access to text information. However, there is great demand for developing such technology and devices in the regional languages of India. Training the visually impaired individuals in using the assistive technology will open up new job prospects for them as personal computer supporters, desk top publishers, or managing internet kiosks.

Developing the basic infrastructure for inclusive education, the availability and accessibility of the assistive devices for primary and secondary level of education on one hand, and developing the higher education with special reference to information science in Braille and Tactile media on the other hand are to be seriously thought and acted upon as the new information age promises new career avenues.

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インドにおける視覚に障害を持つ人々のための高等教育への道

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T. ロビンソン氏はマドラス キリスト教大学の数学科の講師である。2000年に立教大学のスカラシップを得て、同年4月より当大学情報処理科の客員研究員として着任した。研究課題は同大学の数学科での視覚に障害を持つ人々のための教育に関するカリキュラム開発と教材の準備及び教授法の研究である。

ここではその基本となる視覚に障害を持つ人々への高等教育のための基本原理を明確にし、今後の研究活動と当該教育の普及の基本活動指針として制作したものである。また当該教育の普及と支援の要請及び志を同じくする人々との相互理解と協働のために供することも期待している。以下に概要を示す。

現インドにおける、視覚に障害を持つ人々の現状を把握し、国としての事業及び諸支援団体の活動の現状を理解し、正確な社会的要求と問題点を理解することからはじまる。その中から適切な諸支援を開発するための主な要素を導き出す。次にそれらの要素に内在する問題(issues and concerns)を明確に把握する。教育的側面からのニーズと要求を一つの解決策への次段階として提供する。

一方、社会システムの情報化が飛躍的に発展している。又これに伴って、障害補償技術も飛躍的に進み大きな恩恵を与えている。これは過去との比較の中でのことで、必ずしも充分ではない。今ある技術の応用としての障害補償を最大限活用することで得られる環境は当然の権利として主張する。その背景の下に、現時点で考えられうる9つの要因への提案を試みる。これらの要因を一つ一つ解く事により、求めている道を切り開いていくという手順をとることを表明する。