



L V Prasad Eye Institute
L V Prasad Marg, Banjara Hills
Hyderabad, INDIA



Collaborating Centre for
Prevention of Blindness

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Centre for Sight Enhancement
&

Dr P R K Prasad Centre
for Rehabilitation of
Blind and Visually Impaired

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Education for the visually challenged

'Education is not preparation for life; education is life itself.' – John Dewey

Meeting the educational needs of a visually impaired child is perhaps one of the most challenging responsibilities of parents and clinicians. Timely guidelines in selection of the appropriate model and mode of education are crucial for shaping the future of visually challenged children. This newsletter will focus on educational models and selection of an appropriate learning medium and mode for each child.

Educational models

1. Special schools for the blind

The term '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. Special education is aimed at ensuring that students with disabilities are provided an environment that allows them to be educated effectively.

Advantages of residential schools

- a) Availability of trained specialized teachers
- b) Access to a wide range of special equipment
- c) Individual attention to each student
- d) Sufficient time for each student
- e) Excellent system for poor children as boarding and lodging are free
- f) Well-organized and controlled environment
- g) Facilities for extra-curricular activities, e.g., music, dancing, weaving, etc.
- h) Emphasis on special curriculum, e.g., teaching of Braille, orientation and mobility, etc.

Limitations of the residential system

- a) **Low coverage:** According to UNESCO (1988) in most of the developing countries less than 1 percent of the total population is enrolled in a special education system.
- b) **High Cost:** The residential system tends to be very costly due to:
 - ◆ large expenditure on buildings, equipment, infrastructure and establishment;
 - ◆ large per student expenditure on the specialized staff, as the teacher-student ratio is as low as 1:5;
 - ◆ provision of boarding and lodging facilities and other amenities; and
 - ◆ little or no financial contribution from the children's families.
- c) **Restricted Growth:** Students of special schools are labeled as 'special', which hampers their social skills and makes it difficult for them to enter mainstream society later in life.
- d) **Isolation in society:** Minimal contact with the sighted community provokes the visually impaired to form a separate group, affecting mutual understanding between sighted and visually impaired persons.
- e) **Aggressive behavior:** Studies have shown that if the visually impaired are socially isolated and deprived of love, affection and economic support from family members they develop aggressive behavior patterns.



A blind student doing homework using a Braille slate



A student using audio books for his lessons

- f) **Inadequate Services:** There is an absence of adequate early intervention, parental participation and pre-school skills in this system.
- g) **Quality of education:** The residential schools function as self-contained islands and are woefully ill-equipped to fulfill the expected role of integrating all kinds of people. Often the quality of education in this system is poor as compared with other systems.

2. Integrated Education

In an integrated education system, the blind and sighted children study in the same school, attend classes and work in the laboratories together, as well as participate side by side in sports, cultural events and other activities. Many government, private, public and convent schools in the mainstream have opened their doors to visually impaired and other handicapped students.

Advantages of Integrated Education

- a) **Low Cost**
- ◆ No investment in buildings
 - ◆ No expense in maintenance of hostels
 - ◆ No duplication of land areas, playground and equipment
- b) **Integration**
- ◆ Advantage of being in an environment where they can share their views with sighted peers
 - ◆ Congenial company instead of isolation – a natural social environment
 - ◆ Opportunity for participation in community life
 - ◆ Advantage of staying with family, thus ensuring bonding and support
- c) **Family involvement**
- The system 'forces' the family to nurture feelings and assume responsibility for the child.
- d) **Better understanding by the sighted**
- It enables sighted students to appreciate the problems and feelings of the visually impaired and learn how to interact with them.
- e) **Better acceptance**
- Misconceptions are removed when there is close contact between visually impaired and sighted children.
- f) **Familiar Environment**
- Transferring of knowledge is easier in an integrated program because the child is being trained in his/her home area.

g) Community participation

Members of the community are present to support and help the child to grow and develop inside the community.

h) Right of a child

Integrated education is now viewed not merely as another option but as a right of every disabled child.

Limitations of Integrated Education

a) Low Enrollment

- ◆ Number of regular schools admitting such children are limited
- ◆ Lack of trained teachers
- ◆ Poor enrollment statistics

b) Apathy of parents

Parents' attitudes towards visually impaired children are often found to be negative; social prejudices too are strongly embedded in them, which prevent them from facilitating free and equal participation in community activities.

c) Not suitable for all children

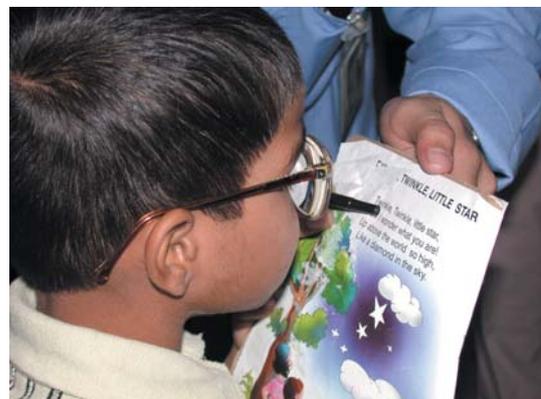
It cannot be denied that learning with sighted children imposes a certain amount of strain on the visually impaired child, especially when the child has additional problems along with vision impairment.

d) Difficult to implement in urban areas

Getting visually impaired children accepted in urban schools proves more difficult than in rural schools.

3. Inclusive Education

Inclusive education refers to schools; centers of learning and educational systems that are open to all students, and that ensure all students learn and participate. Inclusive education has many benefits for students. Instructional time with non-disabled peers helps the students to learn strategies taught by the teacher. Teachers bring in a wide range of ways and methods to teach disabled and non-disabled students. Socialization in the school allows students to acquire communication and interactive skills from one another. Involving non-disabled peers with disabled peers fosters a positive attitude towards each other. Disabled students are included in all aspects of school life such as art classes and gym, lunch recess, and assemblies.



A child with low vision learns how to read with a spectacle magnifier

Selecting an appropriate learning medium

It is difficult to debate which system is better; however, educators, professionals and other concerned persons should select the most suitable educational system and mode of education, according to the needs of the child. Each student is unique, and each child's visual problem is different. Therefore, there can be no standard template for dealing with the educational needs of visually impaired students. Rather, each student needs to be considered individually, which requires individual discussion and negotiation. A child may need a single medium or a combination of various mediums.

Guidelines for selection of learning medium

- a) **Age of the child:** Is the child mentally ready to understand the concept of a specific device? Has the child developed the motor skills required to manipulate the suggested device? Is the device appropriate for the age of the child? For example, a four-year-old child may have difficulty using telescopes or special computer software.
- b) **Support from the family:** Will/Does the child receive any educational support from the family? Are the family members willing to provide support to continue the use of the specific selected mode? (E.g.: What is the practical aspect of preparing large print material, audiocassettes, etc.)
- c) **Residual vision of the child:** Can the child read at a steady speed using the devices without tiring? The priority-reading mode – whether print, Braille or a combination of both – can be chosen based upon the child's residual vision.
- d) **Stability of vision:** Is there any risk of further deterioration of vision? Will the vision be stable both day and night? For example, a child with Retinitis Pigmentosa is likely to lose even the residual vision; hence, it is preferable to introduce Braille/audio cassettes as a secondary mode.

e) **Economic status of family:** Can the family afford to purchase the suggested device? If the child's visual rehabilitation calls for a closed circuit television for reading print, can the family afford it?

f) **Visual needs of child:** Does the device help the child to read more easily the required print size for his/her grade level?

Supportive mediums

a) **Regular print:** Most children find their reading of regular print from up close improves under good lighting. Reading from up close does not harm vision, and should be encouraged. Children with visual impairment should be encouraged to sit by an open window or in a verandah to take advantage of natural light. Provision of an overhead reading lamp enhances contrast in the print and helps increase the reading speed.

b) **Large print:** Large format print enables a visually impaired person to read comfortably. The problem of non-availability of ready-made large format print could be tackled in the following ways:



A student using assistive software

Enrol now!

Short-term Fellowship Programs in Low Vision care

Duration: 3 months

Program begins on: April 1, July 1, & October 1.

Minimum qualification: Diploma in optometry or Master's degree in ophthalmology – preferably institution-based

Registration is limited to two candidates per program.

Registration fee: Indian Rupees 30,000

Low Vision Awareness Program

Duration: 3 days

Program dates: April 27-29, 2007 and September 28-30, 2007

Eligibility: Ophthalmologists, optometrists and rehabilitation professionals

Registration fee: Indian Rupees 1500

CME programs

3-month short-term fellowship program

Mr Birendra Pratap Singh from Neelkanth Paramedical Institute, Sirsaganj, Ferozabad, Uttar Pradesh, completed the three months short-term fellowship program in low vision care from October 1 – December 31, 2006.

Mr Samrat Sarkar from Rajan Eye Care Hospital, Chennai, completed the three months short-term fellowship program in low vision care from November 1, 2006 – January 31, 2007.

Visitors

Delegates to Hyderabad for the All India Ophthalmic Society (AIOS) visited the Vision Rehabilitation Centres from February 1-4, 2007, and observed the services provided to low vision and visually impaired patients.

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- i) Enlarge the regular text to a reading size that is comfortable for the child size by making a good quality photocopy.
 - ii) Re-type or scan the text and make large size printouts if a computer is available.
 - iii) Have volunteers (fellow students, family members, a social worker, etc.) prepare large-size handwritten material.
- c) **Low vision devices:** Optical and non-optical devices could be of great use for children with visual impairment for tackling most classroom problems. They can benefit greatly by using simple monocular telescopes for board



work and stand magnifiers for reading text. Bold lined notebooks and dark lead pens and pencils would enhance contrast and help improve the writing skills.

- d) **Audio books:** Audio books are books recorded on cassette tapes for those who are unable to read regular printed material. Audio books are a proven learning tool for children with severe visual impairment.
- e) **Assistive technology:** Assistive technology, computer literacy and information access is invaluable for everyone today; the visually impaired are not excluded. Information that would otherwise be inaccessible or require manual processing to become accessible can be automatically transformed into formats better suited for the visually impaired using assistive software. Such technologies are becoming mainstream, thus increasing opportunities in employment and education for the visually impaired (Manual on assistive technology enclosed).
- f) **Braille:** For children whose poor vision prevents them from reading and writing print, Braille is the route to literacy. Braille helps children with residual vision to read for longer periods of time without experiencing eye fatigue and strain if magnifiers, scanners, audio books and computers are not available. If children have eye conditions that may worsen over time, learning Braille early offers them more options. Hence, it is better to teach Braille to a student with low vision early on, though he/she may need it a few years later.

Low Vision Awareness Programs (LAP) for 2007

April 27-29, 2007
September 28-30, 2007

You can make a difference

Your contribution can help the Vision Rehabilitation Centres in several ways: provision of low vision devices to underprivileged children, training optometrists in detection and rehabilitation of the blind and those with incurable low vision, and conducting community programs for rehabilitation of persons with visual impairment.

Contributions to the Hyderabad Eye Institute and Hyderabad Eye Research Foundation are tax deductible. Donations above Rs 250 are exempt under Section 80G of the Income Tax Act 1961 for Hyderabad Eye Institute and under section 35(i) (ii) for Hyderabad Eye Research Foundation.

For more information please contact

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Greeting cards based on paintings by children with visual impairment are available for sale. Please contact Vision Rehabilitation Centres, LVPEI.