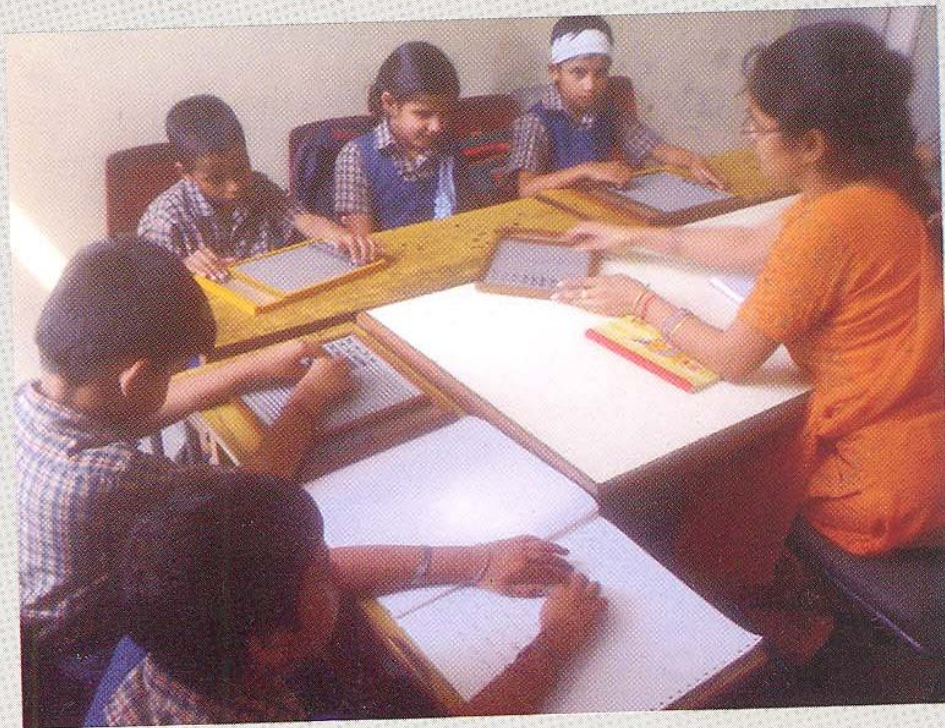


SCHOOLS THAT MEET THE NEEDS OF VISUALLY IMPAIRED CHILDREN



भारतीय पुनर्वास परिषद्

Rehabilitation Council of India

(A Statutory Body under Ministry of Social Justice & Empowerment)

SCHOOLS THAT MEET THE NEEDS OF CHILDREN WITH VISUAL IMPAIRMENT

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Foreword

I not only feel pleased and happy but privileged too to write the foreword for this booklet providing guidelines on setting up a special school for children with blindness and low vision. Blindness/visual impairment means inability to see totally or partially. A child with limited or no visual ability needs many specialized services and the training in the use of equipment which could help him to compensate the loss of vision. The services of a well qualified teacher are of crucial importance. Availability of adequate special equipments such as Brailers, computers fitted with screen reading softwares, Braille books and audio-tactile learning material in a special school are also equally important. Unless these are made available in a school, the quality education of children with visual impairment cannot be imagined. It is, therefore, necessary for those (NGOs) and the Government wishing to set up special schools to ensure that all that is needed for quality education of children with visual impairment are available in these schools.

The Rehabilitation Council of India (RCI) has taken up the task of standardizing norms of a special school wishing to meet the educational needs of children with different disabilities. The Council has already brought out a booklet providing guidelines to set up an early intervention and educational program for children with hearing impairment. The Council in this booklet has attempted to provide in details the requirements of a special school for children with visual impairments. The idea behind this effort of the Council is that the children receiving education in special schools are provided quality education so that when they go out of these schools to enter in inclusive program, they are well equipped to adjust to the school environment with confidence and also benefit from the same. I hope and trust that the information included in this booklet will go a long way in ensuring quality education for our visually impaired children.

**Maj. Gen. (Retd.) Ian Cardozo, AVSM, SM
Chairman, RCI**

Preface

The Rehabilitation Council of India (RCI) was set up as a statutory body with the aim of ensuring quality education to all children with different disabilities. The Council has taken up many measures since its inception to realize this goal. These include development and standardizing training curricula for the training of teachers to work in different teaching situations. Unless well trained teachers are available in different educational programs, the aim of quality education to children with disabilities will remain unachieved.

There are no guidelines with regard to parameters in terms of teaching and non-teaching staff, equipment, space and other facilities that should be available in a special school for the blind and the visually impaired children. This is perhaps why there are special schools in India where some if not all modern equipment are available for the use of these children and also special schools where not even enough traditional equipment do not exist. This is perhaps due to the fact that there are no standard guidelines.

The Council functions with support and expert advice of various disability specific committees. In its meeting in July 2004 at Blind People Association at Ahmedabad, the members took a decision to bring out a booklet outlining the requirements of a special school. The Council wishes to place on records its appreciation for those who assisted in preparing this document. The Council, in particular, acknowledges the support and cooperation of Shri A.K. Mittal, Regional Director, Chennai and Shri Krupanandam, Assistant Director, NIVH, Dehradun.

Dr. J.P. Singh
Member Secretary
RCI

SCHOOLS THAT MEET THE NEEDS OF VISUALLY IMPAIRED CHILDREN

Norms

The education of the visually impaired school going children is no longer considered welfare activity of NGOs and Government organizations, it is rather a human resource development exercise. With the gradual acceptance of the concept of the blind being work—worthy coupled with the passing of P.D. Act has made it obligatory to gear our efforts towards the fulfillment of these goals. To do that, we have to include and stress on three key factors in our School education. They are:

1. Academic Education
2. Pre-vocational training
3. Compensatory teaching

It is not only desirable but essential that a school serving the visually impaired children is well equipped with competent and skilled teachers and also with special equipment / devices and adequate hygienic living conditions. In the absence of these and the desired teaching / learning material, the goals of providing quality and equal educational opportunities would not be achieved. Further, it is also very essential that the classes of children with visual impairment are not crowded i.e. a class upto Upper Primary level should not desirably consist of more than 8-10 children. However, in Secondary and Senior Secondary classes, the number may go upto 15 at the most in each class. In view of this, the requirements of the Model School such as accommodation, staff and equipment are enclosed at Annexure “A”, “B” and “C”.

This document also includes guidelines and norms for the education of children with low vision.

Norms for Accommodation

Table No. — 1

Pre-Primary

Sr.	Accommodation	No.	Size
1.	Class Room	3	12 X 15 Ft. (Each)
2.	Health Clinig	1	12 X 15 Ft.
3.	Library	1	12 X 15 Ft.
4.	Low Vision Clinic	1	12 X 15 Ft.
5.	Staff Room	1	12 X 15 Ft.
6.	Headmistress Office	1	12 X 15 Ft.
7.	Non-teaching staff	1	12 X 15 Ft.
8.	Urinal and Toilet	3	75 Sq. Ft. X 3
9.	Store Room	1	12 X 15 Ft.
10.	Hostel Accommodation	2 (Dormitories)	15 X 10 Ft. (Each)
11.	Corridor/Gallery	1	100 Sq. Ft.
12.	Stair/Ramp	1	200 Sq. Ft.
13.	Toilet and Bathrooms	2 Toilets 2 Bathrooms	30 Sq.Ft. X 2 30 Sq.Ft. X 2
14.	Store	2	50 X 10 Ft. (Each)
15.	Recreational Hall with attached toilet	1	20 X 15 Ft.

Sr.	Accommodation	No.	Size
16.	Kitchen	1	12 X 10 Ft.
17.	Dining Hall	1	20 X 15 Ft.
18.	Supervisor Quarter	1	600 Sq. Ft.
19.	Attendant Quarter	2	450 X 2 Ft.
20.	Sweeper and Cook Quarter	2	450 X 2 = 900 Xq. Ft.
21.	Headmistress	1	900 Sq.Ft.
22.	Gymnasium	1	15 X 12 Ft.
23.	Playground	1	75 X 45 Ft.

Table No. — 2

Primary & Upper-Primary

Sr.	Accommodation	No.	Size
1.	Class Room	9	12 X 15 Ft. (Each)
2.	Resource Room, Social Studies Room, Science Lab, Music Room, Computer Room, Craft Room and Health Clinic	8	12 X 15 Ft. (Each)
3.	Library	1	30 X 20 Ft.
4.	Low Vision Clinic	1	12 X 15 Ft.
5.	Staff Room	1	20 X 15 Ft.
6.	Headmistress/Vice Principal's Office	1	12 X 15 Ft.
	Non-teaching Staff	1	12 X 15 Ft.
7.	Urinal and Toilet	5	75 Sq. Ft. X 5
8.	Store Room	2	12 X 15 Ft. (Each)
9.	Hostel Accommodation	8 (Dormitories)	25 x 15 Ft. (Each)
10.	Corridor/Gallery	1	600 Sq. Ft.
11.	Stair/Ramp	1	200 Sq. Ft.
12.	Toilet and Bathrooms	8 Toilets	30 Sq. Ft. (Each)
		8 Bathrooms	30 Sq. Ft. (Each)

Sr.	Accommodation	No.	Size
13.	Store	2	600 Sq. Ft. (Each)
14.	Recreational Hall with attached toilet	1	30 X 20 Ft.
15.	Study Room	2	400 Sq. Ft. (Each)
16.	Kitchen	1	20 X 15 Ft.
17.	Dining Hall	1	50 X 30 Ft.
18.	Supervisor Quarter	2	600 Sq. Ft. (Each)
19.	Attendant Quarter	2	450 Sq. Ft. (Each)
20.	Sweeper and Cook Quarter	4	450 Sq. Ft. (Each)
21.	Headmaster/Vice- Principal's Quarter	1	900 Sq. Ft.
22.	Gymnasium	1	20 X 20 Ft.
23.	Playground	1	120 X 50 Ft.

Table No. — 3

Secondary & Sr. Secondary

Sr.	Accommodation	No.	Size
1.	Class Room	5	12 X 15 Ft. (Each)
2.	Resource Room, Social Studies Room, Science Lab, Music Room, Computer Room, Craft Room and Health Clinic	8 nos.	12 X 15 Ft. (Each)
3.	Library	1 no.	50 X 30 Ft.
4.	Low Vision Clinic	1	12 X 15 Ft.
5.	Staff Room	1	20 X 15 Ft.
6.	Principal's Office	1	12 X 15 Ft.
	Non-teaching staff	1	12 X 15 Ft.
7.	Urinal and Toilet	5	75 Sq. Ft. X 5
8.	Store Room	2	15 X 12 Ft. (Each)
9.	Hostel Accommodation	5 (Dormitories)	25 x 15 Ft. (Each)
10.	Corridor/Gallery	1	600 Sq. Ft.
11.	Stair/Ramp	1	200 Sq. Ft.
12.	Toilet and Bathrooms	6 Toilets 6 Bathrooms	30 Sq. Ft. X 6 30 Sq. Ft. X 6
13.	Store	2	600 Sq. Ft. (Each)

Sr.	Accommodation	No.	Size
14.	Recreational Hall with attached toilet	1	1200 Sq. Ft.
15.	Study Room	2	400 Sq. Ft. (Each)
16.	Kitchen	1	20 X 15 = 300 Sq. Ft.
17.	Dining Hall	1	30 X 20 Ft.
18.	Warden Quarter	2	600 Sq. Ft.
19.	Attendant Quarter	2	450 Sq. Ft. X 2
20.	Sweeper and Cook Quarter	2	450 Sq. Ft. X 2
21.	Principal's Quarter	1	1000 Sq. Ft.
22.	Gymnasium	1	20 X 20 Ft.
23.	Playground	1	300 X 100 Ft.

Table No. — 4

Pre-Primary to Sr. Secondary

Sr.	Accommodation	No.	Size
1.	Class Room	16	12 X 15 Sq. Ft. (Each)
2.	Resource Room, Social Studies Room, Science Lab, Music Room, Computer Room, Craft Room and Health Clinic	8 nos.	12 X 15 Sq.Ft. (Each)
3.	Library	1	50 X 30 Ft.
4.	Low Vision Clinic	1	20 X 15 Ft.
5.	Staff Room	2	20 X 15 Ft. (Each)
6.	Principal's Office	3	12 X 15 Ft. (Each)
	Non-teaching staff	2	12 X 15 Ft. (Each)
7.	Urinal and Toilet	7	75 Sq. Ft. X 7
8.	Store Room	3	15 X 12 Ft.
9.	Hostel Accommodation	13 (Dormitories)	25 x 15 Ft. (Each)
10.	Corrido/Gallery	1	600 Sq. Ft.
11.	Stair/Ramp	1	200 Sq. Ft.
12.	Toilet and Bathrooms	12 Toilets 12 Bathrooms	30 Sq. Ft. X 12 30 Sq. Ft. X 12

Sr.	Accommodation	No.	Size
13.	Store	4	600 Sq. Ft. (Each)
14.	Recreational Hall with attached toilet	2	900 Sq. Ft. (Each)
15.	Study Room	4	400 Sq. Ft. (Each)
16.	Kitchen	1	20 X 15 = 300 Sq. Ft.
17.	Dining Hall	2	30 X 20 Ft. (Each)
18.	Supervisor Quarter	2	600 Sq. Ft. (Each)
19.	Attendant Quarter	3	450 Sq. Ft. X 3
20.	Sweeper and Cook Quarter	6	450 Sq. Ft. X 6
21.	Principal's Quarter	1	1000 Sq. Ft.
	Vice-Principal/ Headmaster's Quarter	1	900 Sq. Ft.
	Headmistress's Quarter	1	900 Sq. Ft.
22.	Gymnasium	1	20 X 20 Ft. (Each)
23.	Playground	1	300 X 100 Ft.

In addition to the above, 15 % of the covered and playground area may be allocated for the purpose of roads and other purposes.

Staff Pattern

Table No. — 5

Pre-Primary

S. No.	Staff	No.
1.	Headmistress	1
2.	Nursery Teacher	3*
3.	Music Teacher	1
4.	Steno Typist cum Clerk	1
5.	Assistant cum Accountant	1
6.	Store Keeper	1
7.	Lady Supervisor/Matron	1
8.	Cook	1
9.	Sweeper	2
10.	Gardener	1
11.	Peon	1
12.	Part-time Medical Officer	1
13.	Ayah	1

* These teachers should be qualified to teach pre-school children with VI.

Table No. — 6

Primary & Upper-primary

S. No.	Staff	No.
1.	Headmaster/Vice-Principal	1
2.	Teachers	9
3.	Craft Teacher	1
4.	Music Teacher-Vocal and Instrumental	2
5.	Computer Teacher	1
6.	Physical Education Teacher	1
7.	O & M Instructor	1
8.	Steno Typist	1
9.	Assistant cum Account	1
10.	Store Keeper (one for school & one for the hostel)	2
11.	Supervisor	1
12.	Library Assistant	1
13.	Cook	2
14.	Sweeper	2
15.	Gardener	1
16.	Peon	2
17.	Attendant (one of them must be an Aya. If the school is a co-educational one.)	2
18.	Part-time Medical officer	1
19.	Guest Counsellor	1

Note: 9 teachers must be as per the following subjects.

Language teachers—Mother tongue and English, Maths, Social Studies, Science, Hindi, and SUPW.

Table No. — 7

Secondary & Sr. Secondary

S. No.	Staff	No.
1.	Principal	1
2.	Teachers	6 (3 TGTs 3 PGTs)
3.	Craft Teacher	1
4.	Music Teacher—Vocal & Instrumental	2
5.	Computer Teacher	1
6.	O & M Instructor	1
7.	Physical Education Teacher	1
8.	Steno Typist	1
9.	Accountant	1
10.	Clerk	1
11.	Store Keeper (one for the school & one for the hostel)	2
12.	Librarian	1
13.	Hostel Supervisor	1 (2 if the hostel is co-educational)
14.	Cook	2
15.	Sweeper	2
16.	Gardener	1

S.No.	Staff	No.
17.	Peon	2
18.	Attendant	2 (one of them should be Aya if the school if co-educational)
19.	Part-time Medical Officer	1
20.	Counsellor	1

Note: 3 PGTs are must for those subjects which are offered by the school at + 2 level.

Table No. — 8**Pre-Primary to Sr. Secondary**

S. No.	Staff	No.
1.	Principal	1
2.	Vice-Principal	1
3.	Headmistress	1
4.	Nursery Teacher	1
5.	Primary Teacher (PRTs)	5
6.	TGTs	5
7.	PGTs	3
8.	Craft Teachers	2
9.	Music Teacher—Vocal & Instrumental	2
10.	Computer Teacher	1
11.	O & M Instructor	1
12.	Physical Education Teacher	1
13.	Steno Typist	1
14.	Accountant	1
15.	Clerk	1
16.	Store Keeper	3 (one for school and two for hostel)
17.	Librarian	1
18.	Library Clerk	1

S. No.	Staff	No.
19.	Supervisor	2 (one should be a lady supervisor)
20.	Catering Officer	1
21.	Cook	4
22.	Water Carrier	1
23.	Sweeper	3
24.	Gardener	1
25.	Peon	3
26.	Attendant	3 (one of them should be Aya)
27.	Full-time Medical Officer	1
28.	Counsellor	1

Note:

- (a) 3 out of 5 PRTs should be for teaching languages—English, Hindi &/Mother tongue.
- (b) TGTs must be for Mathematics, Science, Social Science, Hindi and English.
- (c) 3 PGTs must be for those subjects which are offered by the school at + 2 level.

General Note:

- (1) The pay scale for both teaching and non-teaching staff be the same as applicable in the concerned State Government/Central Govt.
- (2) The qualifications of the teaching staff should be as per the RCI's norms—they should be registered with RCI.
- (3) In the case of non-residential schools, all the above norms will be applicable except the staff and space requirements mentioned for hostel.

List of equipment

S.No.	Item	Qty.
1.	Braille writing slate	2 for each child (1 small size Braille writing slate for each child in the case of Pre-primary school)
2.	Taylor frame	-do- (except in the case of pre-primary school)
3.	Abacus	1 for each child (except in the case of pre-primary school)
4.	Tactile Geometry kit	50 (for each level except pre-primary)
5.	Braillers	100 (except in pre- primary)
6.	Thermoforming machine	1
7.	Walking sticks both folding and rigid	One stick for each child as per his / her height up to chest.
8.	Tactile indoor games like chess board, draught boards, puzzles of various types, Montessori equipment and outdoor games such as adapted cricket equipment for the blind etc, slides, swings, jungle gyms etc.	As per need

S.No.	Item	Qty.
9.	Computers fitted with speech softwares (Jaws for Windows, Kurzweil Educational and Magic) with scanners.	20 (in case of pre-primary only 5 computers will be sufficient)
10.	Small electronic Braille embosser	1 (except in the case of pre-primary)
11.	Low vision devices both optical like CCTV and magnifiers of various types and Non-optical like writing slates, slant tables, table lamps etc.	As per need
12.	Music instruments like harmonium, violin, tabla, sitar, guitar, tanpura, flutes, drums, music synthesizer etc.	As per need
13.	Electric Braille	5 for re-primary section

In addition to the above equipment and instruments, the school must have enough funds allocated for the purchase of Braille books, tape recorders, cassettes, Braille papers and Braille sheets and also adequate furniture for school and hostel. Funds for preparing teacher-made teaching learning material should also be allocated.

Note: If the school is for children with low-vision, then in addition to the above, provision for low-vision specialists, tools for vision testing and screening must also be available as given in the following paragraphs:

LOW VISION EDUCATION

In order to encourage special schools for the blind to take in younger children with low vision, it is the responsibility of the schools to encourage the development of the vision they have. The experience shows that given the appropriate training, the children with severe visual impairment such as children with ROP Grade 4; moderate to severe optic atrophy and cortical visual impairment have shown remarkable improvement in their visual functioning particularly for mobility purpose and in some cases in academic activities as well. Therefore, if early intervention is done well, it is expected that more children than before would enter school and formal academics with mixed literacy mediums -for example Braille alone for most subjects, but a combination of vision and Braille (tactile high contrast drawing) for illustrations and number work; vision for orientation supported by the cane for mobility. Our plan should look toward this future and include equipment to enable these children with low vision to learn to use efficiently the vision they have.

Light tables may be included to the list of equipment/classroom facilities for primary school and definitely in the low vision clinic (a large table per class in pre-primary and primary). A light table is like the X-ray or film negative viewing tables. The only difference is that the intensity of the light is made adjustable. With very young children, coloured plastic objects, puzzles, sheets etc are placed on the table making them very visible and easy to perceive both visually and with touch. Later, this serves as an illuminated surface that is useful with illustrations for children learning numbers/ alphabets or to develop writing skills. Transparent sheets for

writing, translucent plastic shapes, alphabets, numbers and puzzles need also to be made available.

Magnifying sheets and glare protection are required for the computers. Slanting tables, reading writing frames, felt pens/drawing pencils and double-spaced thick lined notebooks, yellow paged notebooks, and colour filter lenses or sheets are all basic non-optical aids that may also be made available to the students.

The library should have large print books for older children. Early literacy books for little children should be selected with attention to the visibility of the pictures. The library should have a CCTV for use by children while they are there.

Optical aids include the CCTV, stand magnifiers (2, 4, & 8x) with and without illumination and monocular and binocular telescopes.

Adequate plug points in classrooms and lights with shades would help in providing for individual lighting needs of each child.

Regular visual assessments should be apart of practice and reassessment of learning media and mobility every year or as needed. The low vision clinic should therefore have basic optometry tests in addition to low vision aids. Children with low vision need regular vision examinations. Teachers should be trained to carry out basic assessments of visual functioning. The school should have access to an optometrist so that all basic evaluations are done regularly. In terms of visual assessment material, in the light of the foregoing, the following provisions are essential for meeting special educational needs of children with low vision:

- ◆ The teacher with adequate training in vision assessment and low vision education

- ◆ Control over lighting to enable appropriate luminance during testing in the low vision room/assessment room.
- ◆ The room size of minimum 4 meters along one dimension to enable distance vision testing.
- ◆ Regular assessment of all the children with low vision by an optometrist for stereopsis, accommodation, contrast sensitivity, colour vision, visual acuity and visual fields.
- ◆ Availability of tests of visual acuity, both near and distance, appropriate for use with children who are literate and pre-literate and developmentally appropriate tests for infants/toddlers.
- ◆ Availability of tests of movement perception, contrast sensitivity and colour vision appropriate for use with children who are literate and pre-literate and developmentally appropriate tests for infant/toddler .
- ◆ Availability of basic set of non-optical and optical aids for trial and training.



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